

Near-miss Symmetric Polyhedral Cages : supplementary material

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1 Possible symmetries of p-cages with Platonic and Archimedean hole-polyhedra

1.1 Distribution of Hole Edges

The diagram below list all the possible hole edges distribution for the regular solids.

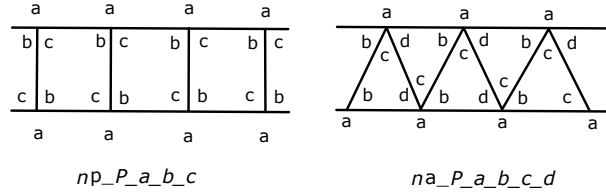


Figure S1: Distribution of the hole edges on the prism and antiprism.

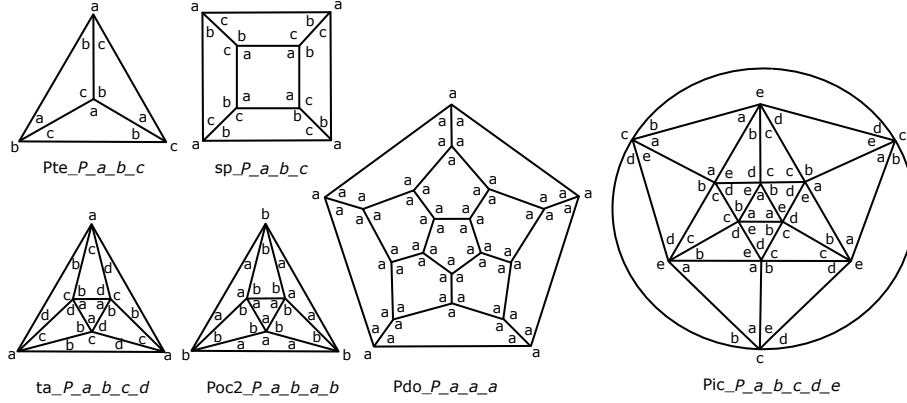


Figure S2: Distribution of the hole edges on the Platonic solids: the tetrahedron, the cube (the square prism), the octahedron (as a triangular antiprism but also a specific distribution), the dodecahedron and the icosahedron.

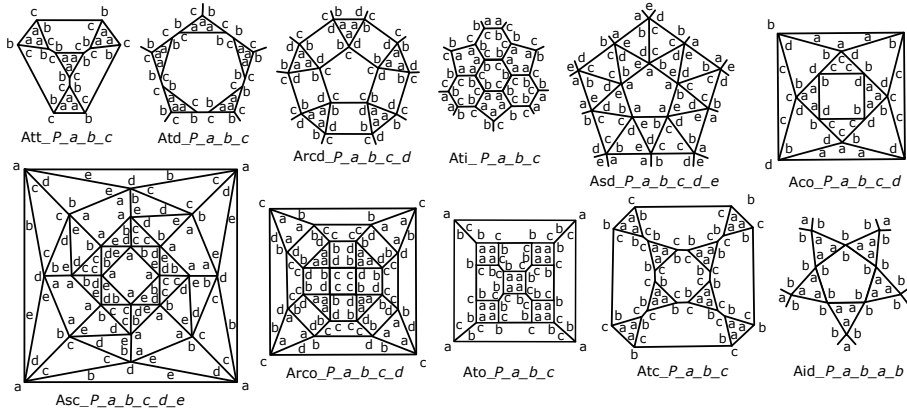


Figure S3: Distribution of the hole edges on the Archimedean solids. From top left to bottom right: the truncated cube, the truncated dodecahedron, the rhombicosidodecahedron, the truncated icosahedron, the snub cube, the cuboctahedron, the snub cube, the rhombicuboctahedron, the truncated octahedron, the truncated cube and the icosidodecahedron.

1.2 Platonic hole-polyhedra

In this appendix, we identify all the subgroups of the regular solids which act transitively on the solid's planar graphs. A group G acts transitively on a graph if for any vertex v of the graph, the set $\{gv|g \in G\}$ is the set of all graph vertices. We use these transitive subgroups to identify all the possible distributions of hole-edges around the vertices of the hole-polyhedra so that the faces of the resulting p-cages are all equivalent. We shall consider the prism, anti-prism, Platonic solids as well as the Archimedean solids.

1.2.1 Dihedral symmetry: prism and anti-prism

The symmetry of the prism and anti-prism with an n -gon base is the dihedral group $G = D_n$. As the number of elements $|D_n| = 2n$, this matches the number of vertices of the prism or anti-prism. As a result no subgroup can act transitively as they would not have enough elements. The restriction on the labelling due to dihedral symmetry is shown in Fig S1.

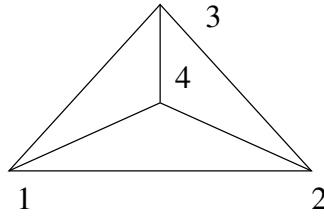


Figure S4: Labelling of the vertices of the tetrahedron

1.2.2 Tetrahedron

A set of generators for the symmetry group of the tetrahedron, with its vertices numbered as in Fig. S4, is

- a $2\pi/3$ rotation (C_3) around an axis connecting the centre of the face 1, 2, 3 with vertex 4,
- a π rotation (C_2) around an axis connecting the centres of the edges 1, 2 and 3, 4.

These act as permutations $(1, 2, 3)$ and $(1, 2)(3, 4)$, respectively. The symmetry group is isomorphic to A_4 , the order of which is 12.

Of the subgroups of the tetrahedral groups, a normal subgroup isomorphic to the Klein Vierergruppe $C_2 \times C_2$, $\{I, (12)(34), (13)(24), (14)(23)\}$ corresponding to rotations around axes connecting the centres of opposite pairs of edges, acts transitively.

Applying the three non-trivial elements of the $C_2 \times C_2$ subgroup to the tetrahedron can be used to move the three numbers of hole-adjacent points at one vertex to all others, yielding the labelled tetrahedron in Fig. S2. The full tetrahedral group requires, in addition, that all labels are equal ($2\pi/3$ rotation around axis connecting vertex and opposite face centre).

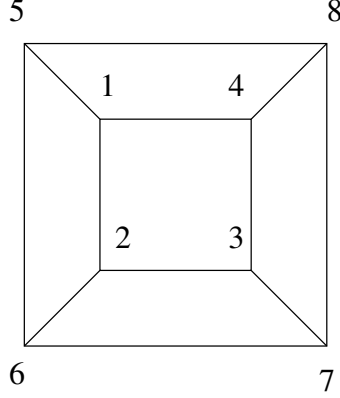


Figure S5: Numbering of the vertices of the cube

1.2.3 Cube

The orientation-preserving symmetry group of the cube is isomorphic to S_4 , all permutations of the four principal diagonals [2, 3, 4]. In this case, we have used the computer algebra software GAP [5] to determine the subgroups, and their transitivity.

A set of generators for the group (see Fig. S5 for the numbering of the vertices) is:

- a $\pi/2$ rotation (C_4) around an axis connecting the centres of opposite faces such as 1-2-3-4 and 5-6-7-8,
- a $\pi/2$ rotation around an axis connecting the centres of opposite faces such as 2-6-7-3 and 1-5-8-4.

These act as permutations $(1, 2, 3, 4)(5, 6, 7, 8)$ and $(2, 6, 7, 3)(1, 5, 8, 4)$.

Three conjugate D_8 subgroups (and the full group) are transitive. The former corresponds to the fact that a cube is also a four sided prism, in three different orientations (hence the 3 conjugate subgroups).

Choosing one orientation (keeping faces 1-2-3-4 and 5-6-7-8 invariant under a $\pi/2$ rotations around the axis connecting their centres) is equivalent to choosing one of the D_3 subgroups. Using this yields the labelling in Fig. S2 The entire group sets all labels equal (using for example a $2\pi/3$ rotation around the axis connecting, the vertices 1 and 7).

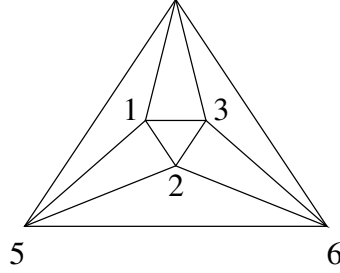


Figure S6: Numbering of the vertices of the octahedron

1.2.4 Octahedron

The group of orientation-preserving symmetries of the octahedron is isomorphic to that of the cube, as the two polyhedra are dual [2], and thus to S_4 , which is of order 24. Notice that, while the structure of the subgroups is the same, the notion of transitivity differs, as transitivity on vertices for the octahedron corresponds to the transitivity on the faces of the cube.

A suitable set of generators for the group is (see Fig. S6 for the numbering of the vertices) is:

- a $2\pi/4$ rotation (C_4) around an axis connecting opposite vertices such as 1 and 6,
- a $2\pi/4$ rotation around an axis connecting opposite vertices such as 2 and 4.

The permutation representation of the two generators are $(2, 3, 4, 5)$ and $(1, 5, 6, 3)$. The group generated is isomorphic to S_4 .

In the case of the octahedron, of the 30 subgroups of S_4 , the transitive ones are as follows:

- 4 (conjugate) subgroups isomorphic to S_3 (order 6). One of these is generated by a π rotation around the axis connecting centre points of edges 1-3 and 5-6 and by a $2\pi/3$ rotation around an axis containing the centres of two opposite faces such as 1-4-5 and 2-3-6. The other 3 are generated in a similar fashion;

- one normal subgroup A_4 (order 12), corresponding to even permutations of the faces, generated by a π rotations around axes connecting opposite vertices;
- the full group.

As the (conjugate) S_3 subgroups are not subgroups of the A_4 , choosing an S_3 (choosing another one is just another orientation), or the A_4 yields different constraints of the labels added at the corners of the faces.

Using the S_3 subgroup generated by the permutations $(1, 5)(2, 4)(3, 6)$, and $(1, 2, 3)(4, 5, 6)$ (in cycle notation), corresponding to an S_3 generated by a π rotation around an axis connecting centre points of edges 1-5 and 3-6 and by a $2\pi/3$ rotation around an axis connecting the centres of opposite faces such as 1-2-3 and 4-5-6, which yields the left labelled octahedron in Fig. S2.

The second option is the A_4 group. This yields the right labelled octahedron in Fig. S2.

Choosing the entire group, starting with the constraints obtained using A_4 , and using in addition to those $\pi/2$ rotations connecting one vertex to the opposite yields all equal labels.

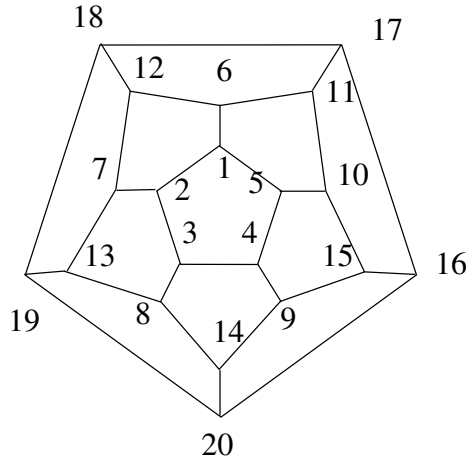


Figure S7: Numbering of the vertices of the dodecahedron

1.2.5 Dodecahedron

The dodecahedral symmetry group D , isomorphic to the icosahedral one, I (as the two polyhedra are dual), is isomorphic to A_5 (corresponding to even permutations of five cubes inscribed in the dodecahedron). The group is generated by (see Fig. S7 for the numbering of the vertices)

- a $2\pi/5$ rotation (C_5) around an axis connecting the centres of opposite faces such as 1-2-3-4-5 and 16-17-18-19-20,
- a $2\pi/5$ rotation around the axis connecting the centres opposite faces such as 1-6-12-7-2 and 9-15-16-20-14.

These act as permutations (1, 2, 3, 4, 5) (6, 7, 8, 9, 10) (11, 12, 13, 14, 15) (16, 17, 18, 19, 20), and (1, 6, 12, 7, 2) (3, 5, 11, 18, 13) (10, 17, 19, 8, 4) (9, 15, 16, 20, 14). The order of the group is 60, and it has 59 subgroups (including the trivial ones). The group has no subgroups acting transitively on the vertices of the dodecahedron, therefore, if all faces are equivalent, so are all their orientations (due to the rotations around axes connecting the centre of any face with that of its opposite), so all labels must be equal, as shown in Fig. S2.

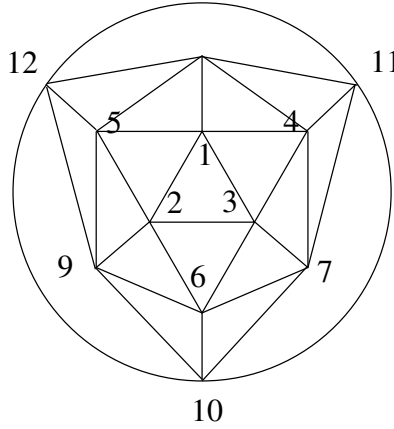


Figure S8: Numbering of the vertices of the icosahedron

1.2.6 Icosahedron

The icosahedral symmetry group I is isomorphic to the dodecahedral one (dual polyhedra), and to A_5 . The group, in this case, is generated by, e.g., (see Fig. S8 for the numbering of the vertices)

- a $2\pi/5$ rotation around an axis connecting vertices 1 and 10,
- a $2\pi/5$ rotation around an axis connecting vertices 4 and 9.

These act as permutations (2, 3, 4, 8, 5) (9, 6, 7, 11, 12), and (1, 3, 7, 11, 8) (5, 2, 6, 10, 12).

The transitive subgroups are 5 (conjugate) A_4 subgroups, corresponding to rotations of an inscribed tetrahedron (and, trivially, the icosahedral group itself). One of the A_4 subgroups is generated by a $2\pi/3$ rotation around an axis connecting the centres of the opposite faces such as 1-2-3 and 10-11-12, and one by an angle of π connecting the centres of opposite edges such as 2-6 and 8-11. Using this subgroup yield the labelling in Fig. 2. The whole group would yield all labels equal.

1.3 Archimedean hole-polyhedra

Note that the symmetry group of each of the Archimedean solids is also a finite rotation group, therefore, they must agree with the symmetry group of one of the Platonic solids. The group action is, however, different as it permutes a larger set of vertices. Vertex transitivity (or, similarly, face-transitivity) is thus different.

Some Archimedean solids are constructed as truncations of Platonic solids. We shall consider these first.

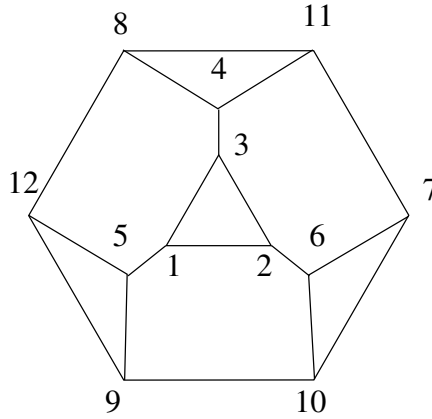


Figure S9: Numbering of the vertices of the truncated tetrahedron

1.3.1 Truncated tetrahedron

The truncated tetrahedron is constructed by truncating the tetrahedron at $1/3$ of the edges at all its vertices. The resulting polyhedron has regular hexagons and triangles as its faces. Its vertices are of two kinds: shared by a hexagon and a triangle or shared by two hexagons.

The symmetry group of the truncated tetrahedron is the same as that of the tetrahedron: orientation-preserving symmetries form a group $T \cong A_4$. In this case, none of the subgroups (except the full group) is transitive. As

different kinds of edges meet at vertices, there is no symmetry exchanging the labels around a vertex. The restrictions due to the symmetry result in the labelling shown in Fig. S3.

Generators for the symmetry group are as follows (see Fig. S9 for the numbering of the vertices):

- a rotation by an angle $2\pi/3$ around an axis connecting the centres of the opposite faces such as 1-2-3 and 7-11-8-12-9-10, and
- a rotation by an angle π around an axis connecting the centres of the opposite edges such as 3-4 and 9-10.

Permutation representations of the generators are $(1, 2, 3)(4, 5, 6)(7, 8, 9)(10, 11, 12)$ (C_3) and $(1, 11)(2, 8)(3, 4)(5, 7)(6, 12)(9, 10)$ (C_2).

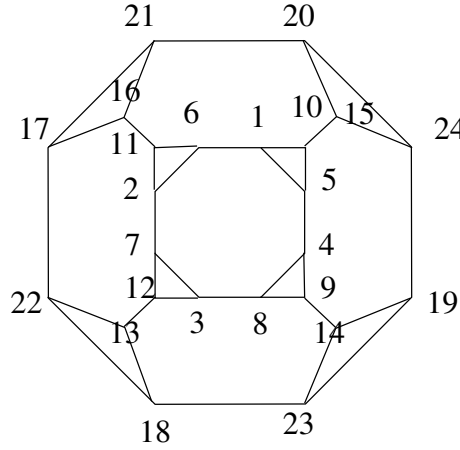


Figure S10: Numbering of the vertices of the truncated cube

1.3.2 Truncated cube

The truncated cube is constructed by truncating the cube at $a/(2 + \sqrt{2})$ of its edges, resulting in a solid whose faces are regular octagons and triangles of edge length $a/(1 + \sqrt{2})$, where a is the length of the edges of the cube.

The resulting solid has 24 vertices, 6 octagonal and 8 triangular faces, 12 edges shared by two octagons and 24 edges shared by an octagon and a triangle.

The symmetry group is the same as that of the cube, generated by (see Fig. S10 for the numbering of the vertices)

- a $2\pi/4$ rotation (C_4) around an axis connecting the centres of the opposite faces such as 1-6-2-7-3-8-4-5 and 17-22-18-23-19-24-20-2,

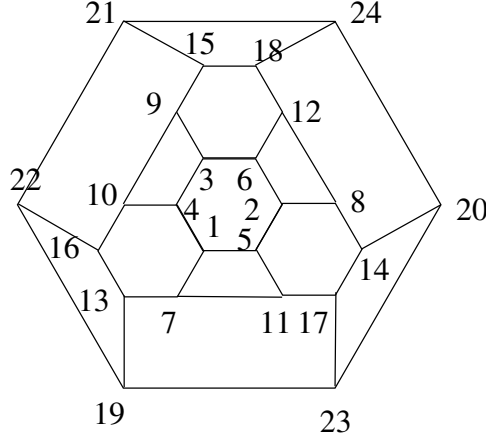


Figure S11: Numbering of the vertices of the truncated octahedron

- a $2\pi/4$ rotation (C_4) around an axis connecting the centres of opposite faces such as 3-12-13-18-23-14-9-8 and 11-16-21-20-15-10-1-6.

These generators act as the permutations $(1, 2, 3, 4)(5, 6, 7, 8)(9, 10, 11, 12)(13, 14, 15, 16)(17, 18, 19, 20)(21, 22, 23, 24)$ and $(1, 11, 21, 15)(5, 2, 17, 24)(3, 13, 23, 9)(4, 7, 22, 19)(6, 16, 20, 10)(8, 12, 18, 14)$. The generated group is isomorphic to S_4 . None of the subgroups (except the full group) act transitively on the vertices. As at the vertices, similarly to the case of the truncated tetrahedron, different kinds of edges (shared by two octahedra and shared by an octahedron and a triangle) meet, the orientation is not changed by the group, therefore, not all labels need to be equal. By labelling around one vertex and spreading it around the truncated cube, the labelling in Fig. S3. is obtained.

1.3.3 Truncated octahedron

The truncated octahedron is obtained by truncating the octahedron at $1/3$ of the edge length, resulting in a solid whose faces are squares and regular hexagons. The solid has 8 hexagonal and 6 square faces, 24 vertices, 12 edges shared by two hexagons (remnant of the original edges of the octahedron) and 24 edges shared by a hexagon and a square.

The symmetry group of the truncated octahedron is generated by the following set of generators - derived from the ones used in the case of the octahedron - (see Fig. S11 for the numbering of the vertices),

- a $2\pi/4$ rotation (C_4) connecting the centres of opposite faces such as 4-3-9-10 and 14-17-23-20,

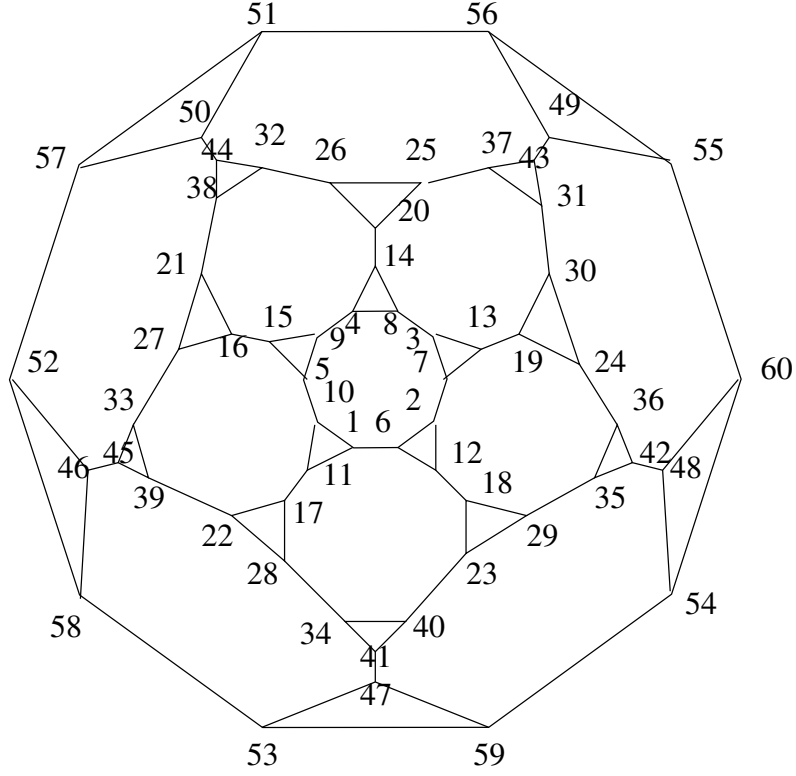


Figure S12: Numbering of the vertices of the truncated dodecahedron

- a $2\pi/4$ rotation connecting the centres of the opposite faces such as 1-7-11-17 and 21-24-18-15.

The resulting permutation representations are $(4, 3, 9, 10)(14, 20, 23, 17)(1, 6, 15, 16)(8, 24, 19, 11)(5, 12, 21, 13)(7, 2, 18, 22)$ and $(1, 7, 11, 5)(15, 21, 24, 18)(4, 13, 17, 2)(9, 22, 20, 12)(10, 19, 14, 6)(3, 16, 23, 8)$. The generated group is isomorphic to S_4 , and agrees with the symmetry group of the octahedron.

None of the subgroups (except the full symmetry group) acts transitively on the vertices. Using the symmetry to restrict labels yield the labelling shown on Fig. S3..

1.3.4 Truncated dodecahedron

The truncated dodecahedron is obtained from the dodecahedron by truncating its vertices with triangles. It has 12 decagonal faces and 20 triangular ones. It has 30 edges shared by two decagons and 60 edges shared by a decagon and a triangle, and 60 vertices.

The symmetry group, similarly to the case of the dodecahedron, is generated by (see Fig. S12 for the numbering of the vertices)

- a $2\pi/5$ (C_5) rotation around an axis connecting the centres of opposite faces such as 1-6-2-3-7-3-8-4-9-10 and 51-57-52-58-53-59-54-60-55-56,
- a $2\pi/5$ (C_5) rotation around an axis connecting the centres of opposite faces such as 4-14-20-26-32-38-21-16-15-9 and 23-29-35-42-48-54-59-47-41-40.

The permutation representation of these is (1, 2, 3, 4, 5) (6, 7, 8, 9, 10) (11, 12, 13, 14, 15) (16, 17, 18, 19, 20) (21, 22, 23, 24, 25) (26, 27, 28, 29, 30) (31, 32, 33, 34, 35) (36, 37, 38, 39, 40) (41, 42, 43, 44, 45) (46, 47, 48, 49, 50) (51, 52, 53, 54, 55) (56, 57, 58, 59, 60) and (4, 20, 32, 21, 15) (9, 14, 26, 38, 16) (5, 8, 25, 44, 27) (10, 3, 37, 50, 33) (11, 7, 31, 51, 45) (1, 13, 43, 57, 39) (17, 2, 30, 56, 46) (6, 19, 49, 52, 22) (28, 12, 24, 55, 58) (34, 18, 36, 60, 53) (41, 23, 35, 48, 59) (40, 29, 42, 54, 47). The generated group is isomorphic to A_5 , i.e., the corresponding finite rotation group is the same as in the case of the dodecahedron. There are no transitive subgroups (except the full symmetry group). The symmetries restrict the addition of labels to that shown in Fig. S3.

1.3.5 Truncated icosahedron

The truncated icosahedron is obtained by replacing the vertices of the icosahedron with pentagons. The resulting polyhedron has 60 vertices, 20 hexagonal faces (remainders of the original triangular ones) and 12 pentagonal ones, and 30 edges shared by two pentagons and 60 shared by a pentagon and a hexagon.

The generators of the symmetry group can be chosen (the same rotations as the ones for the icosahedron) as: (see Fig. S13 for the numbering of the vertices)

- a $2\pi/5$ rotation (C_5) around an axis connecting the centres of the opposite faces such as 3-6-12-21-9 and 46-52-58-55-49,
- a $2\pi/5$ rotation around an axis connecting the centres of the opposite faces such as 14-23-29-26-17 and 31-34-43-40-37.

The permutation actions corresponding to these are (3, 6, 12, 21, 9) (4, 2, 17, 33, 15) (10, 5, 14, 39, 24) (1, 8, 26, 36, 18) (19, 11, 23, 42, 30) (7, 20, 29, 45, 27) (31, 16, 35, 53, 48) (13, 32, 47, 51, 37) (34, 25, 44, 59, 54) (22, 38, 50, 57, 40) (43, 28, 41, 56, 60) (46, 52, 58, 55, 49) and (14, 23, 29, 26, 17) (8, 35,

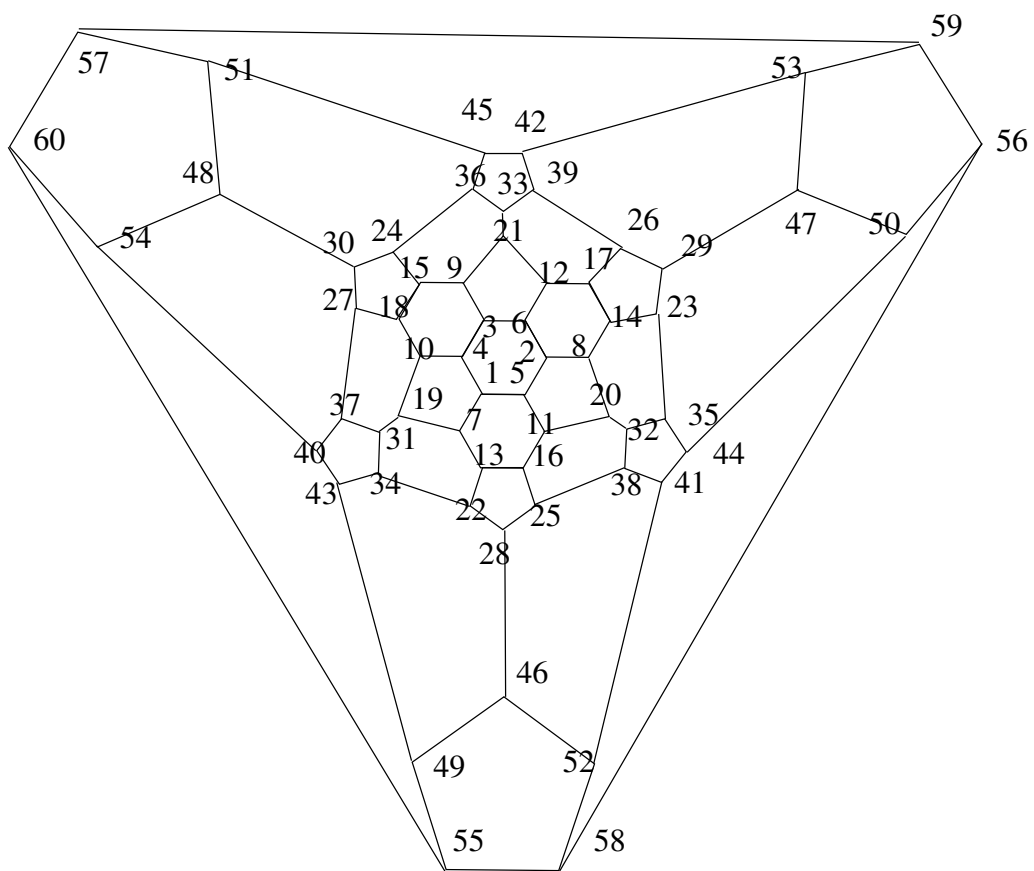


Figure S13: Numbering of the vertices of the truncated icosahedron

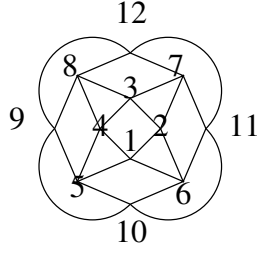


Figure S14: Numbering of the vertices of the cuboctahedron

47, 39, 12) (2, 32, 50, 42, 21) (20, 44, 53, 33, 6) (5, 38, 56, 45, 9) (11, 41, 59, 36, 3) (1, 25, 58, 51, 15) (16, 52, 57, 24, 4) (7, 28, 55, 48, 18) (13, 46, 60, 30, 10) (19, 22, 49, 54, 27) (31, 34, 43, 40, 37). The generated group is the same as the symmetry group of the icosahedron, isomorphic to A_5 . There are no transitive subgroups (apart from the full group).

The group restricts the labelling to the one in Fig. S3.

1.3.6 Cuboctahedron

The cuboctahedron is constructed by truncating the vertices of a cube with triangles, at halfway points of the edges (nothing remains of the original edges of the cube). The resulting polyhedron has 8 triangular and 6 square faces, 14 edges (all shared by one square and one triangular face) and 12 vertices.

The symmetry group is generated by (see Fig. S14 for the numbering of the vertices)

- a $2\pi/4$ rotation (C_4) around an axis connecting the centres of opposite faces such as 1-2-3-4 and 9-10-11-12,
- a $2\pi/4$ rotation connecting the centres of opposite faces such as 3-7-12-8 and 1-6-10-5.

The generators act as permutations (1, 2, 3, 4) (5, 6, 7, 8) (9, 10, 11, 12) and (3, 7, 12, 8) (2, 11, 9, 4) (1, 6, 10, 5), respectively.

The group generated is the same rotation group as for the cube, isomorphic to S_4 . There is one transitive subgroup, isomorphic to A_4 , generated by $2\pi/3$ (C_3) rotations around the main diagonals of the cube. This restricts the labelling of the polyhedron to that shown in Fig. S3. The full group restricts all labels $a = c$ and $b = d$.

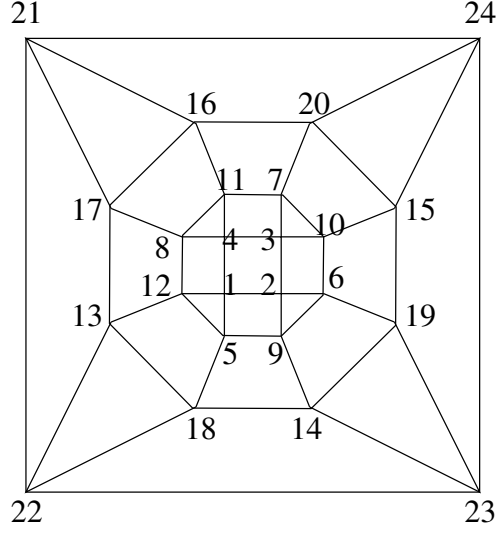


Figure S15: Numbering of the vertices of the rhombicuboctahedron

1.3.7 Rhombicuboctahedron

Cutting off the vertices of a cube, and replacing them with triangles, and cutting off what remains of the edges and replacing them with squares yields the rhombicuboctahedron. It has 24 vertices, 18 square and 8 triangular faces and 48 edges.

The symmetry group, similar to the case of the cube, is generated by (see Fig. S15 for the numbering of the vertices)

- a $2\pi/4$ rotation (C_4) around an axis connecting the centres of opposite faces such as 1-2-3-4 and 21-23-23-14,
- a $2\pi/4$ rotation around an axis connecting the centres of opposite faces such as 6-19-15-10 and 8-12-13-17.

These act as permutations $(1, 2, 3, 4)(5, 6, 7, 8)(9, 10, 11, 12)(13, 14, 15, 16)(17, 18, 19, 20)(21, 22, 23, 24)$ and $(6, 19, 15, 10)(9, 23, 20, 3)(2, 14, 24, 7)(5, 22, 16, 4)(1, 18, 21, 11)(8, 12, 13, 17)$. The generated group is the same as for the cube, isomorphic to S_4 . None of the subgroups (except the full group) act transitively. The group restricts the labelling of the rhombicuboctahedron to the one shown in Fig. S3.

1.3.8 Truncated cuboctahedron

The truncated cuboctahedron is topologically equivalent to a truncation of the cuboctahedron, but deformation is needed to ensure maximal symmetry.

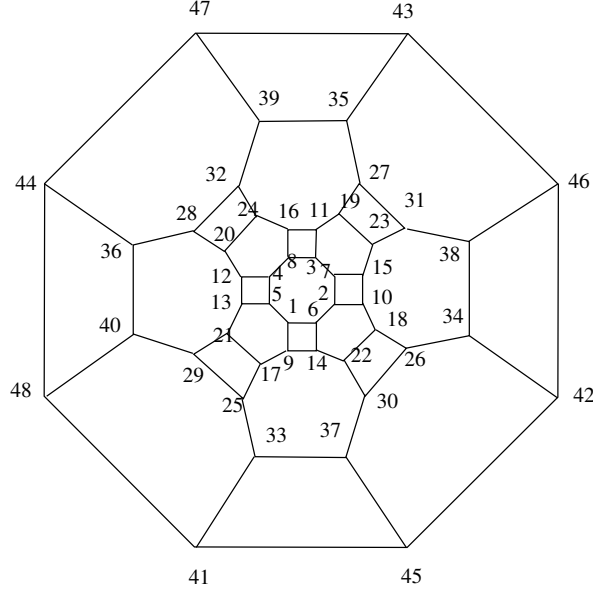


Figure S16: Numbering of the vertices of the truncated cuboctahedron

It has 48 vertices, 12 square, 8 hexagonal, and 6 octagonal faces, 24 edges shared by a square and a hexagon, 24 edges shared by a square and an octagon, and 24 edges shared by a hexagon and an octagon.

The symmetries of the truncated cuboctahedron are generated by the following transformations (see Fig. S16 for the numbering of the vertices):

- a $2\pi/4$ rotation (C_4) around an axis connecting the centres of opposite faces 1-5-2-6-3-7-8 and 41-45-42-46-43-47-48,
- a $2\pi/4$ rotation around an axis connecting the centres of opposite faces such as 12-20-28-36-40-29-21-13 and 10-15-23-31-38-34-26-18.

These generators act as the permutations $(1, 2, 3, 4)(5, 6, 7, 8)(9, 10, 11, 12)(13, 14, 15, 16)(17, 18, 19, 20)(21, 22, 23, 24)(25, 26, 27, 28)(29, 30, 31, 32)(33, 34, 35, 36)(37, 38, 39, 40)(41, 42, 43, 44)(45, 46, 47, 48)$ and $(12, 28, 40, 21)(13, 20, 36, 29)(4, 32, 48, 17)(5, 24, 44, 25)(8, 39, 41, 9)(1, 16, 47, 33)(3, 35, 45, 14)(6, 11, 43, 37)(7, 27, 42, 22)(2, 19, 46, 30)(15, 31, 34, 18)(10, 23, 38, 26)$. The generated group is the same as for the cube, isomorphic to S_4 .

In the case of the truncated cuboctahedron, even the full symmetry group is not transitive, the orbit of vertex 1 is 1, 2, 3, 4, 13, 14, 15, 16, 17, 18, 19, 20, 29, 30, 31, 32, 33, 34, 35, 36, 45, 46, 47, 48 and that of vertex 5 is 5, 6, 7, 8, 9, 10, 11, 12, 21, 22, 23, 24, 25, 26, 27, 28, 37, 38, 39, 40, 41, 42,

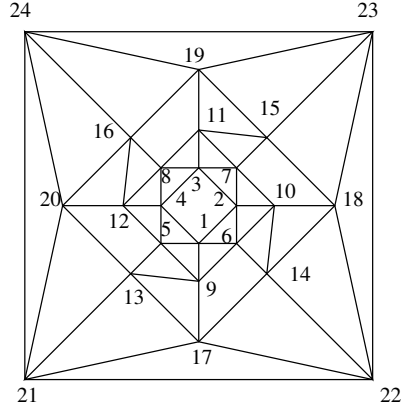


Figure S17: Numbering of the vertices of the snub cube

43, 44. The symmetry group can be made transitive by including reflections, e.g., extending it from O (the octagonal group) to O_h (octagonal group with a reflection in the symmetry plane of the cube).

For all the proper subgroups, the orbit of a vertex is smaller than for the whole group.

1.3.9 Snub cube

Taking a cube, pulling out and rotating in the same direction all of its faces until they can be connected with equilateral triangles of the same edge length yields the snub cube. It has 24 vertices, 6 square and 32 triangular faces (of which 8 is only shares edges with other triangles, close to the vertices of the original cube, and 24 share one edge with a square, one with another such triangle and one with a triangle that only shares edges with triangles), and 12 edges shared between triangles sharing edges with cubes and 24 edges shared between triangles sharing edges with squares and triangles not sharing edges with squares (in total, 36 edges shared by two triangles), and 24 edges shared by a triangle and a square, in total, 60 edges.

Generators for the symmetry group of the snub cube can be the same rotations as for the cube, now being: (see Fig. S17 for the numbering of the vertices)

- a $2\pi/4$ rotation (C_4) around an axis connecting the centres of opposite faces such as 1-2-3-4 and 21-21-23-24
- a $2\pi/4$ rotation around an axis connecting the centres of opposite faces such as 7-10-18-15 and 5-13-20-12.

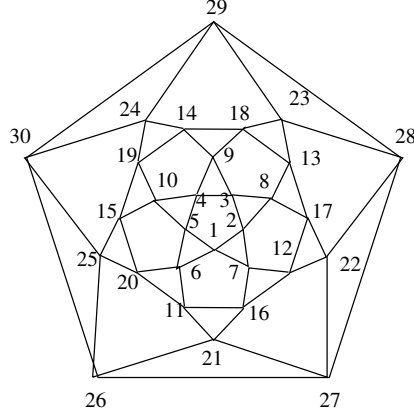


Figure S18: Numbering of the vertices of the icosidodecahedron

These act on the vertices as the permutations $(1, 2, 3, 4) (5, 6, 7, 8) (9, 10, 11, 12) (13, 14, 15, 16) (17, 18, 19, 20) (21, 22, 23, 24)$ and $(7, 10, 18, 15) (2, 14, 23, 11) (3, 6, 22, 19) (1, 17, 24, 8) (4, 9, 21, 16) (5, 13, 20, 12)$. The group generated is the symmetry group of the cube. There are no transitive subgroups (apart from the full group). The symmetry restricts the labelling of the snub cube to the one shown in Fig. S3.

1.3.10 Icosidodecahedron

The icosahedron stems from the rectification (total truncation: cutting of vertices at the half of the edges) of the icosahedron. It has 30 vertices, 12 pentagonal and 20 triangular faces (the former replacing the vertices, and the latter the remnants of the faces of the icosahedron), and 60 edges, all shared by a triangular and a pentagonal face.

The symmetries of the icosidodecahedron are generated by the same rotations that generate the symmetries of the icosahedron or the dodecahedron (see Fig. S18 for the numbering of the vertices),

- a $2\pi/5$ rotation (C_5) around an axis connecting the centres of opposite faces such as 1-2-3-4-5 and 26-27-28-29-30,
- a $2\pi/5$ rotation around an axis connecting the centres of opposite faces such as 4-9-14-19-10 and 12-16-21-27-22.

These generators act as the permutations $(1, 2, 3, 4, 5) (6, 7, 8, 9, 10) (11, 12, 13, 14, 15) (16, 17, 18, 19, 20) (21, 22, 23, 24, 25) (26, 27, 28, 29, 30)$ and $(4, 9, 14, 19, 10) (3, 18, 24, 15, 5) (8, 23, 30, 20, 1) (2, 13, 29, 25, 6) (17, 28, 26, 11, 7) (22, 27, 21, 16, 12)$, respectively. The generated group is the

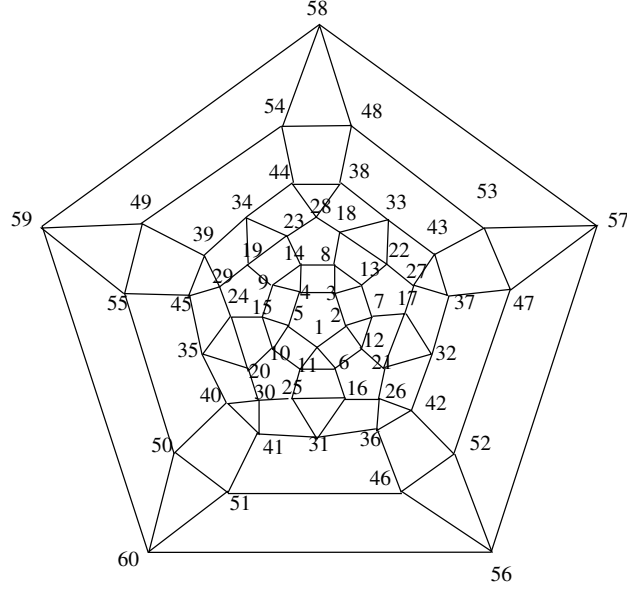


Figure S19: Numbering of the vertices of the rhombicosadodecahedron

same as for the icosahedron and the dodecahedron, isomorphic to A_5 . There are no transitive proper subgroups. The symmetry restricts the labelling to the one in Fig. S3.

1.3.11 Rhombicosidodecahedron

Expanding an icosahedron by moving its faces diagonally out, then doing the same with the dual dodecahedron, and finally patching the square holes yields the rhombicosadodecahedron. It has 60 vertices, 20 triangular, 12 pentagonal and 30 square faces, 60 edges shared by a triangle and a square, 60 edges shared by a pentagon and a square, and 120 edges.

Its symmetries are generated by the same rotations as for the dodecahedron and icosahedron (see Fig. S19 for the numbering of the vertices):

- a $2\pi/5$ rotation (C_5) around an axis connecting the centres of opposite faces such as 1-2-3-4-5 and 56-57-58-59-60,
- a $2\pi/5$ rotation around an axis connecting the centres of opposite faces such as 9-19-29-24-15 and 32-37-47-52-42.

These act as permutations $(1, 2, 3, 4, 5)(6, 7, 8, 9, 10)(11, 12, 13, 14, 15)(16, 17, 18, 19, 20)(21, 22, 23, 24, 25)(26, 27, 28, 29, 30)(31, 32, 33, 34, 35)(36, 37, 38, 39, 40)(41, 42, 43, 44, 45)(46, 47, 48, 49, 50)(51, 52, 53, 54, 55)(56, 57, 58, 59, 60)$ and $(9, 19, 29, 24, 15)(14, 34, 45, 20, 5)(4, 23, 39,$

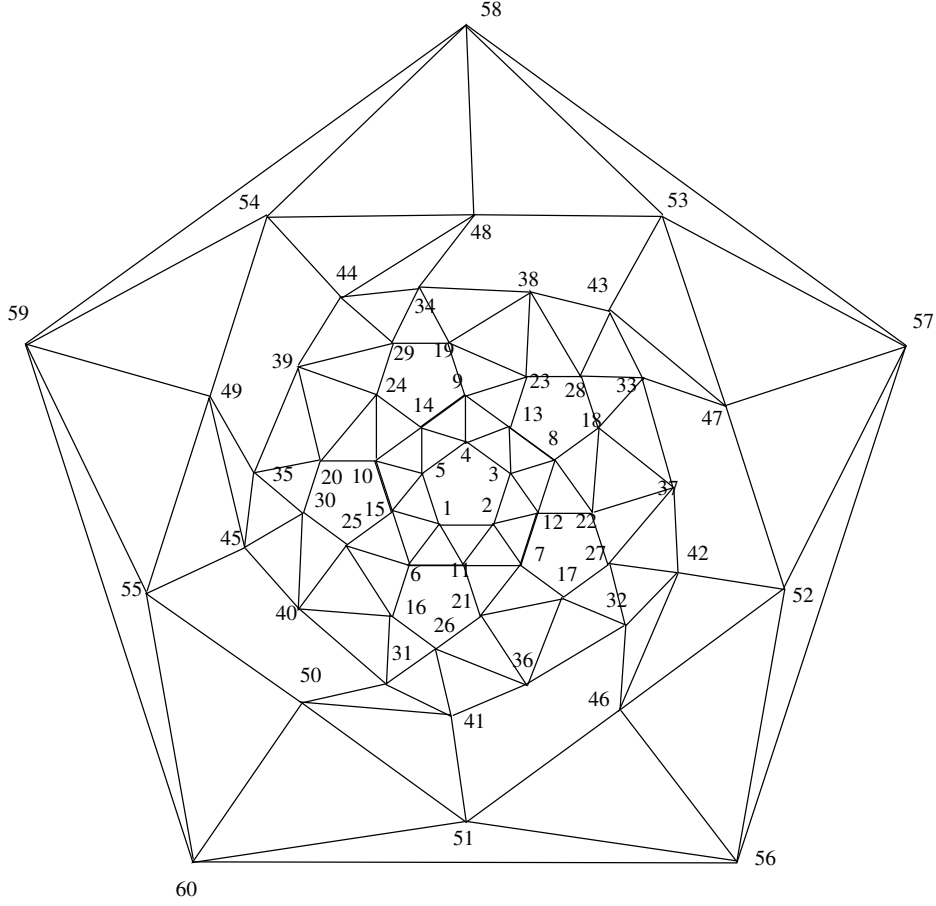


Figure S20: Numbering of the vertices of the snub dodecahedron

35, 10) (8, 44, 55, 30, 1) (3, 28, 49, 40, 11) (18, 54, 50, 25, 2) (13, 38, 59, 41, 6) (33, 58, 51, 16, 7) (22, 48, 60, 31, 12) (43, 57, 46, 26, 17) (27, 53, 56, 36, 21) (37, 47, 52, 42, 32), respectively. The generated finite rotational group is the same as for the dodeca- and icosahedra, isomorphic to A_5 . None of the subgroups (except for the full group) are transitive. The symmetry restricts the labelling to the one shown in Fig. S3.

1.3.12 Snub dodecahedron

Pulling out the faces of a dodecahedron, rotating them slightly, and filling up the holes with equilateral triangles yields the snub dodecahedron. It has 12 pentagonal and 80 triangular faces, 60 vertices and 150 edges.

One can take the same two rotators as for the dodecahedron to generate the symmetry group (see Fig. S20 for the numbering of the vertices),

- a $2\pi/5$ rotation (C_5) around an axis connecting the centres of the opposite faces 1-2-3-4-5 and 56-57-58-59-60,
- a $2\pi/5$ rotation around an axis connecting the centres of opposite faces such as 9-19-29-24-14 and 32-46-51-41-36.

These generators act on the vertices as the permutations (1, 2, 3, 4, 5) (6, 7, 8, 9, 10) (11, 12, 13, 14, 15) (16, 17, 18, 19, 20) (21, 22, 23, 24, 25) (26, 27, 28, 29, 30) (31, 32, 33, 34, 35) (36, 37, 38, 39, 40) (41, 42, 43, 44, 45) (46, 47, 48, 49, 50) (51, 52, 53, 54, 55) (56, 57, 58, 59, 60) and (9, 19, 29, 24, 14) (23, 34, 39, 10, 4) (13, 38, 44, 20, 5) (28, 48, 35, 15, 3) (8, 43, 54, 30, 1) (33, 58, 45, 6, 12) (18, 53, 49, 25, 2) (22, 47, 59, 40, 11) (37, 57, 55, 16, 7) (27, 52, 60, 31, 21) (42, 56, 50, 26, 17) (32, 46, 51, 41, 36). The generated rotation group is the same as for the tetrahedron, isomorphic to A_5 . There are no transitive subgroups (apart from the full group). The symmetry restricts the labelling to the one shown in Fig. S3.

2 List of all symmetric p-cage (P=6 to 20)

2.1 tp

2.1.1 Regular Cages

name	θ	name	θ	name	θ
tp_P6_1_1_1	70.5288	tp_P12_5_2_2	90.0	tp_P17_4_5_5	64.1514
tp_P7_2_1_1	82.4277	tp_P13_2_4_4	49.3306	tp_P17_6_4_4	80.5452
tp_P8_1_1_3	54.7356	tp_P13_4_3_3	77.352	tp_P18_3_6_6	46.5233
tp_P8_1_2_2	54.7356	tp_P14_3_4_4	62.5857	tp_P18_5_5_5	70.5288
tp_P8_3_1_1	90.0	tp_P14_5_3_3	82.4277	tp_P18_7_4_4	84.157
tp_P9_2_2_2	70.5288	tp_P15_2_5_5	37.3774	tp_P19_4_6_6	57.8939
tp_P10_1_3_3	37.3774	tp_P15_4_4_4	70.5288	tp_P19_6_5_5	75.3301
tp_P10_3_2_2	79.1877	tp_P15_6_3_3	86.521	tp_P19_8_4_4	87.2579
tp_P11_2_3_3	59.9817	tp_P16_3_3_7	54.7356	tp_P20_3_7_7	37.3774
tp_P11_4_2_2	85.2384	tp_P16_3_5_5	54.7356	tp_P20_4_4_9	54.7356
tp_P12_1_4_4	0.0	tp_P16_5_4_4	76.1638	tp_P20_5_6_6	65.1989
tp_P12_2_2_5	54.7356	tp_P16_7_3_3	90.0	tp_P20_7_5_5	79.1877
tp_P12_3_3_3	70.5288	tp_P17_2_6_6	21.1796	tp_P20_9_4_4	90.0

2.1.2 Near-Miss Cages

name	c_l	c_a	Δ_l	Δ_a	θ
tp_P17_3_5_6	0.24302	1.75698	0.00120	0.00120	50.59050
tp_P17_3_4_7	0.20268	1.79732	0.00246	0.00246	51.20460
tp_P20_4_6_7	0.232844	1.76716	0.00381	0.00382	54.43960
tp_P13_2_3_5	0.255679	1.74432	0.00445	0.00446	50.06680
tp_P19_3_6_7	0.173955	1.82605	0.00467	0.00468	42.76160
tp_P18_3_5_7	0.209116	1.79088	0.00522	0.00522	47.53820
tp_P19_2_7_7	0.0840802	1.91592	0.00658	0.00659	0.91321
tp_P14_2_4_5	0.235174	1.76483	0.00688	0.00688	44.49420
tp_P20_4_5_8	0.197143	1.80286	0.00804	0.00804	53.32720
tp_P9_1_2_3	0.310459	1.68954	0.00865	0.00865	47.55280
tp_P12_2_3_4	0.349726	1.65027	0.00952	0.00952	54.02260
tp_P16_3_4_6	0.252337	1.74766	0.00963	0.00964	53.49070
tp_P18_4_5_6	0.285603	1.7144	0.01185	0.01185	60.44580
tp_P15_3_4_5	0.320995	1.67901	0.01259	0.01260	57.95570
tp_P20_3_6_8	0.16972	1.83028	0.01285	0.01285	40.90790
tp_P19_4_4_8	0.18359	1.81641	0.01420	0.01420	55.23200
tp_P19_4_5_7	0.236266	1.76373	0.01420	0.01421	56.34880
tp_P16_2_5_6	0.21473	1.78527	0.01438	0.01438	33.09920
tp_P19_3_5_8	0.18145	1.81855	0.01459	0.01460	46.34880
tp_P18_3_4_8	0.178073	1.82193	0.01544	0.01547	50.68280
tp_P18_2_6_7	0.207627	1.79237	0.01747	0.01747	15.07760
tp_P20_2_7_8	0.202376	1.79762	0.01754	0.01755	0.84086
tp_P19_5_5_6	0.317864	1.68214	0.01961	0.01961	67.28760
tp_P15_3_3_6	0.229254	1.77075	0.02089	0.02089	55.52000
tp_P15_2_4_6	0.214563	1.78544	0.02101	0.02101	42.72120
tp_P14_2_3_6	0.215702	1.7843	0.02292	0.02294	49.25620
tp_P20_3_5_9	0.176574	1.82343	0.02447	0.02452	46.41060
tp_P20_6_5_6	0.350329	1.64967	0.02514	0.02512	72.43260
tp_P17_8_3_3	0.317546	1.68245	0.02573	0.02576	90.00000
tp_P16_4_4_5	0.371274	1.62873	0.02584	0.02585	66.55370
tp_P19_3_4_9	0.219242	1.78076	0.02774	0.02776	50.78780
tp_P14_1_5_5	0.0809069	1.91909	0.02771	0.02778	0.43542
tp_P18_4_4_7	0.228608	1.77139	0.02902	0.02904	57.25880
tp_P17_2_5_7	0.215253	1.78475	0.02935	0.02940	33.49810
tp_P20_5_5_7	0.263326	1.73667	0.03041	0.03045	63.17850
tp_P11_1_3_4	0.293476	1.70652	0.03093	0.03093	32.68610
tp_P19_2_6_8	0.205841	1.79416	0.03296	0.03296	19.36920
tp_P11_2_2_4	0.303823	1.69618	0.03355	0.03354	56.23000

name	c_l	c_a	Δ_l	Δ_a	θ
tp_P17_5_4_5	0.419964	1.58004	0.03434	0.03435	72.69300
tp_P16_2_4_7	0.222173	1.77783	0.03527	0.03527	43.18280
tp_P13_3_3_4	0.438535	1.56147	0.03533	0.03535	65.41260
tp_P13_1_4_5	0.299279	1.70072	0.03609	0.03609	1.38100
tp_P17_4_4_6	0.291186	1.70881	0.03636	0.03642	61.49960
tp_P15_1_5_6	0.231674	1.76833	0.03836	0.03847	0.51086
tp_P10_1_2_4	0.300497	1.6995	0.03927	0.03931	46.17800
tp_P18_6_4_5	0.468612	1.53139	0.04016	0.04015	77.39020
tp_P14_3_3_5	0.315451	1.68455	0.04082	0.04082	59.13430
tp_P13_6_2_2	0.423985	1.57601	0.04091	0.04093	90.00000
tp_P15_2_3_7	0.261861	1.73814	0.04137	0.04144	49.58290
tp_P18_2_5_8	0.212846	1.78715	0.04138	0.04144	35.90480
tp_P20_5_4_8	0.203695	1.79631	0.04367	0.04366	59.17840
tp_P20_2_6_9	0.200418	1.79958	0.04413	0.04414	25.85570
tp_P19_7_4_5	0.515947	1.48405	0.04436	0.04440	81.17740
tp_P18_9_3_3	0.284412	1.71559	0.04723	0.04724	90.00000
tp_P16_1_6_6	0.0609548	1.93905	0.04746	0.04762	0.35237
tp_P20_8_4_5	0.563364	1.43664	0.04761	0.04763	84.34160
tp_P17_2_4_8	0.226571	1.77343	0.04781	0.04790	44.45170
tp_P14_4_3_4	0.521256	1.47874	0.04957	0.04955	73.04300
tp_P10_2_2_3	0.512501	1.4875	0.04961	0.04966	63.41880
tp_P19_2_5_9	0.210187	1.78981	0.05104	0.05109	38.43630
tp_P17_4_3_7	1.46297	0.537032	0.00238	0.05253	58.93630
tp_P17_1_6_7	0.11863	1.88137	0.05554	0.05556	0.39475
tp_P16_1_5_7	0.264869	1.73513	0.05580	0.05587	0.59776
tp_P18_5_4_6	0.334991	1.66501	0.05621	0.05622	68.02960
tp_P7_1_1_2	0.403195	1.5968	0.05759	0.05763	59.11690
tp_P12_1_3_5	0.295298	1.7047	0.05768	0.05773	35.23240
tp_P15_5_3_4	0.599654	1.40035	0.05795	0.05795	78.57290
tp_P19_5_4_7	0.258793	1.74121	0.05820	0.05828	62.75380
tp_P20_2_5_10	0.206748	1.79325	0.05918	0.05917	40.56600
tp_P18_2_4_9	0.242047	1.75795	0.05993	0.06001	45.22220
tp_P18_1_7_7	0.0467053	1.95329	0.06235	0.06250	0.28573
tp_P18_1_6_8	0.179481	1.82052	0.06240	0.06251	0.50919
tp_P16_6_3_4	0.67471	1.32529	0.06329	0.06326	82.86750
tp_P14_1_4_6	0.286695	1.71331	0.06332	0.06331	15.48960
tp_P16_4_3_6	0.272917	1.72708	0.06511	0.06513	60.78360
tp_P17_7_3_4	0.747804	1.2522	0.06671	0.06671	86.34320

name	c_l	c_a	Δ_l	Δ_a	θ
tp_P19_1_7_8	0.0730102	1.92699	0.06839	0.06863	0.38050
tp_P19_1_6_9	0.214117	1.78588	0.06859	0.06864	0.59625
tp_P19_6_4_6	0.380828	1.61917	0.06932	0.06938	73.28060
tp_P11_1_2_5	0.326003	1.674	0.06943	0.06942	47.10770
tp_P14_7_2_2	0.367784	1.63222	0.07295	0.07300	90.00000
tp_P18_8_3_4	0.762352	1.23765	0.07344	0.07346	89.27690
tp_P20_1_8_8	0.0372193	1.96278	0.07381	0.07408	0.26479
tp_P20_1_7_9	0.112902	1.8871	0.07401	0.07408	0.28586
tp_P17_1_5_8	0.253464	1.74654	0.07508	0.07508	2.52452
tp_P15_4_3_5	0.385335	1.61466	0.07657	0.07662	66.91720
tp_P20_1_6_10	0.221269	1.77873	0.07695	0.07694	1.31698
tp_P11_3_2_3	0.682013	1.31799	0.07707	0.07711	73.53050
tp_P9_4_1_1	0.636966	1.36303	0.07715	0.07719	90.00000
tp_P13_1_3_6	0.296982	1.70302	0.07758	0.07761	38.65320
tp_P20_7_4_6	0.427534	1.57247	0.07784	0.07785	77.50550
tp_P15_1_4_7	0.274422	1.72558	0.07916	0.07918	26.68650
tp_P19_9_3_4	0.77386	1.22614	0.08004	0.08009	89.99990
tp_P20_6_4_7	0.295182	1.70482	0.08241	0.08245	67.93200
tp_P18_1_5_9	0.240736	1.75926	0.08692	0.08700	16.96410
tp_P12_4_2_3	0.829319	1.17068	0.08897	0.08896	80.29390
tp_P16_1_4_8	0.264827	1.73517	0.09032	0.09040	32.36130
tp_P20_10_3_4	0.714698	1.2853	0.09141	0.09142	89.99990
tp_P13_5_2_3	0.957654	1.04235	0.09390	0.09389	85.22290
tp_P14_1_3_7	0.303688	1.69631	0.09446	0.09449	40.79510
tp_P16_5_3_5	0.461102	1.5389	0.09829	0.09833	73.33760

2.2 sp

2.2.1 Regular Cages

name	θ	name	θ	name	θ
sp_P6_1_1_1	54.7356	sp_P13_4_3_3	67.7128	sp_P17_6_4_4	73.4696
sp_P7_2_1_1	76.8063	sp_P14_3_4_4	37.1105	sp_P18_5_5_5	54.7356
sp_P8_1_2_2	0.0	sp_P14_5_3_3	76.8063	sp_P18_7_4_4	79.8441
sp_P8_3_1_1	90.0	sp_P15_4_4_4	54.7356	sp_P19_4_6_6	22.9912
sp_P9_2_2_2	54.7356	sp_P15_6_3_3	83.9668	sp_P19_6_5_5	63.9828
sp_P10_3_2_2	71.0393	sp_P16_3_5_5	0.0	sp_P19_8_4_4	85.2469
sp_P11_2_3_3	29.945	sp_P16_5_4_4	65.5302	sp_P20_5_6_6	43.4027
sp_P11_4_2_2	81.7335	sp_P16_7_3_3	90.0	sp_P20_7_5_5	71.0393
sp_P12_3_3_3	54.7356	sp_P17_4_5_5	40.9602	sp_P20_9_4_4	90.0
sp_P12_5_2_2	90.0				

2.2.2 Near-Miss Cages

name	c_l	c_a	Δ_l	Δ_a	θ
sp_P18_5_4_6	0.228051	1.77195	0.00223	0.00224	55.05170
sp_P20_6_5_6	0.236614	1.76339	0.00415	0.00414	59.05680
sp_P15_4_3_5	0.256631	1.74337	0.00419	0.00419	55.34570
sp_P19_5_5_6	0.18105	1.81895	0.00492	0.00492	49.65790
sp_P20_6_4_7	0.216294	1.78371	0.00641	0.00642	58.27750
sp_P17_5_4_5	0.27928	1.72072	0.00665	0.00665	59.64460
sp_P17_5_3_6	0.231742	1.76826	0.00761	0.00760	58.83380
sp_P16_4_4_5	0.203195	1.79681	0.00801	0.00802	48.84610
sp_P12_3_2_4	0.285217	1.71478	0.00814	0.00815	56.04670
sp_P14_4_2_5	0.467735	1.53226	0.00518	0.00885	59.97050
sp_P14_4_3_4	0.336995	1.663	0.01145	0.01145	60.37680
sp_P18_5_3_7	0.238663	1.76134	0.01323	0.01323	57.58510
sp_P13_3_3_4	0.225315	1.77469	0.01400	0.01400	47.83140
sp_P18_4_5_6	0.186055	1.81395	0.01534	0.01534	34.78880
sp_P13_2_4_4	0.235797	1.7642	0.01563	0.01565	0.57853
sp_P20_5_5_7	0.164068	1.83593	0.01619	0.01620	46.28460
sp_P18_3_6_6	0.173883	1.82612	0.01645	0.01646	0.55220
sp_P19_5_4_7	0.191758	1.80824	0.01673	0.01674	52.72620
sp_P19_6_3_7	0.269153	1.73085	0.01274	0.01708	60.98040
sp_P20_4_6_7	0.189774	1.81023	0.01752	0.01752	10.90230
sp_P19_6_4_6	0.266972	1.73303	0.01861	0.01862	61.81800
sp_P18_6_4_5	0.344308	1.65569	0.01910	0.01911	67.46430
sp_P9_2_1_3	0.550601	1.4494	0.01992	0.01992	57.71870
sp_P11_3_2_3	0.414553	1.58545	0.02128	0.02129	61.24050
sp_P17_4_4_6	0.179085	1.82092	0.02439	0.02439	45.57860
sp_P16_4_3_6	0.202128	1.79787	0.02456	0.02455	53.51130
sp_P15_3_4_5	0.229171	1.77083	0.02500	0.02501	29.37290
sp_P17_8_3_3	0.317578	1.68242	0.02574	0.02575	90.00000
sp_P10_2_2_3	0.248141	1.75186	0.02616	0.02619	46.70060
sp_P17_3_5_6	0.232655	1.76735	0.02696	0.02699	0.88124
sp_P19_3_6_7	0.215211	1.78479	0.02816	0.02816	0.55206
sp_P16_5_3_5	0.306485	1.69351	0.02871	0.02874	62.27310
sp_P20_3_7_7	0.133349	1.86665	0.02888	0.02890	0.46143
sp_P20_5_4_8	0.163329	1.83667	0.03054	0.03053	52.01960
sp_P19_7_4_5	0.3882	1.6118	0.03104	0.03104	73.63760
sp_P15_5_3_4	0.426915	1.57309	0.03291	0.03292	69.11570
sp_P19_4_5_7	0.188104	1.8119	0.03321	0.03327	31.73380
sp_P14_3_3_5	0.19878	1.80122	0.03811	0.03810	45.03050

name	c_l	c_a	Δ_l	Δ_a	θ
sp_P20_7_4_6	0.293269	1.70673	0.03871	0.03874	67.17690
sp_P15_2_5_5	0.162893	1.83711	0.03928	0.03931	0.41258
sp_P8_2_1_2	0.433547	1.56645	0.03979	0.03983	61.79650
sp_P18_6_3_6	0.260679	1.73932	0.03999	0.04000	62.91360
sp_P13_6_2_2	0.42363	1.57637	0.04092	0.04092	90.00000
sp_P20_8_4_5	0.436038	1.56396	0.04148	0.04149	78.73080
sp_P18_4_4_7	0.179656	1.82034	0.04172	0.04172	44.64160
sp_P13_3_2_5	0.326373	1.67363	0.04182	0.04184	54.67910
sp_P14_2_4_5	0.291954	1.70805	0.04309	0.04309	0.62786
sp_P12_2_3_4	0.298043	1.70196	0.04399	0.04405	18.16580
sp_P13_4_2_4	0.346968	1.65303	0.04417	0.04417	62.55840
sp_P20_7_3_7	0.251189	1.74881	0.03946	0.04482	63.59530
sp_P17_4_3_7	0.225474	1.77453	0.04542	0.04543	52.73430
sp_P20_3_6_8	0.213967	1.78603	0.04680	0.04681	0.53807
sp_P18_9_3_3	0.2837	1.7163	0.04721	0.04719	90.00000
sp_P16_2_5_6	0.218776	1.78122	0.04868	0.04876	0.41258
sp_P20_4_5_8	0.187874	1.81213	0.04993	0.04993	31.69730
sp_P18_3_5_7	0.227994	1.77201	0.05041	0.05045	0.79424
sp_P16_3_4_6	0.230018	1.76998	0.05106	0.05113	26.72810
sp_P16_6_3_4	0.497418	1.50258	0.05166	0.05166	75.85880
sp_P15_5_2_5	0.354813	1.64519	0.04319	0.05423	63.43310
sp_P17_2_6_6	0.120165	1.87984	0.05619	0.05645	0.30768
sp_P19_4_4_8	0.186822	1.81318	0.05751	0.05753	45.21740
sp_P17_6_3_5	0.347449	1.65255	0.05980	0.05985	67.72240
sp_P7_1_1_2	0.42556	1.57444	0.06096	0.06101	45.52350
sp_P12_4_2_3	0.560182	1.43982	0.06170	0.06169	71.07600
sp_P10_1_3_3	0.223495	1.7765	0.06247	0.06250	0.32247
sp_P15_3_3_6	0.217473	1.78253	0.06251	0.06262	44.86440
sp_P18_2_6_7	0.132492	1.86751	0.06335	0.06349	0.28815
sp_P11_2_2_4	0.254987	1.74501	0.06439	0.06438	44.80350
sp_P10_3_1_3	0.537032	1.46297	0.06039	0.06535	63.06220
sp_P17_2_5_7	0.260199	1.7398	0.06645	0.06648	0.41164
sp_P17_7_3_4	0.571665	1.42833	0.06650	0.06651	81.23240
sp_P19_2_7_7	0.0914458	1.90855	0.06927	0.06946	0.29931
sp_P19_2_6_8	0.194928	1.80507	0.06953	0.06983	0.45039
sp_P19_7_3_6	0.287368	1.71263	0.06993	0.06998	66.28260
sp_P19_3_5_8	0.223369	1.77663	0.07054	0.07058	1.44251
sp_P20_4_4_9	0.212667	1.78733	0.07289	0.07298	44.69940

name	c_l	c_a	Δ_l	Δ_a	θ
sp_P14_7_2_2	0.368143	1.63186	0.07303	0.07302	90.00000
sp_P17_3_4_7	0.22854	1.77146	0.07323	0.07326	28.50190
sp_P20_2_7_8	0.089966	1.91003	0.07489	0.07494	0.32946
sp_P15_2_4_6	0.284022	1.71598	0.07502	0.07510	0.57290
sp_P20_2_6_9	0.228096	1.7719	0.07627	0.07637	0.39091
sp_P18_8_3_4	0.648082	1.35192	0.07714	0.07716	85.50910
sp_P9_4_1_1	0.636393	1.36361	0.07711	0.07718	90.00000
sp_P9_1_2_3	0.402797	1.5972	0.08207	0.08207	0.62145
sp_P11_1_3_4	0.319965	1.68004	0.08329	0.08334	0.30462
sp_P13_2_3_5	0.295254	1.70475	0.08346	0.08351	16.57750
sp_P19_9_3_4	0.721177	1.27882	0.08357	0.08358	88.90960
sp_P16_3_3_7	0.250472	1.74953	0.08542	0.08543	44.88810
sp_P18_7_3_5	0.386735	1.61326	0.08655	0.08651	72.10480
sp_P18_2_5_8	0.252014	1.74799	0.08716	0.08727	0.41924
sp_P20_3_5_9	0.218172	1.78183	0.08725	0.08738	2.02104
sp_P16_6_2_5	0.321414	1.67859	0.08992	0.08997	66.02100
sp_P18_3_4_8	0.22591	1.77409	0.08996	0.09012	32.49690
sp_P20_10_3_4	0.713768	1.28623	0.09146	0.09142	89.99990
sp_P13_5_2_3	0.685515	1.31448	0.09182	0.09186	78.33940
sp_P14_5_2_4	0.419558	1.58044	0.09408	0.09409	67.71380
sp_P20_8_3_6	0.310555	1.68944	0.09531	0.09536	69.04870

2.3 pp

2.3.1 Regular Cages

name	θ	name	θ	name	θ
pp_P6_1_1_1	37.3774	pp_P13_4_3_3	58.534	pp_P18_5_5_5	37.3774
pp_P7_2_1_1	71.6905	pp_P14_5_3_3	71.6905	pp_P18_7_4_4	75.9544
pp_P8_3_1_1	90.0	pp_P15_4_4_4	37.3774	pp_P19_6_5_5	52.862
pp_P9_2_2_2	37.3774	pp_P15_5_2_5	63.4349	pp_P19_8_4_4	83.4512
pp_P10_3_1_3	63.4349	pp_P15_6_3_3	81.6822	pp_P20_5_6_6	0.0
pp_P10_3_2_2	63.4349	pp_P16_5_4_4	55.2417	pp_P20_7_3_7	63.4349
pp_P11_4_2_2	78.5862	pp_P16_7_3_3	90.0	pp_P20_7_5_5	63.4349
pp_P12_3_3_3	37.3774	pp_P17_6_4_4	66.945	pp_P20_9_4_4	90.0
pp_P12_5_2_2	90.0				

2.3.2 Near-Miss Cages

name	c_l	c_a	Δ_l	Δ_a	θ
pp_P18_6_4_5	0.236708	1.76329	0.00012	0.00012	59.92350
pp_P17_4_5_5	0.213441	1.78656	0.00416	0.00416	1.22351
pp_P20_7_4_6	0.246289	1.75371	0.00588	0.00588	62.40940
pp_P18_6_3_6	0.221789	1.77821	0.00597	0.00598	61.34260
pp_P15_5_3_4	0.310266	1.68973	0.00641	0.00642	62.75540
pp_P13_4_2_4	0.284619	1.71538	0.00957	0.00956	60.46510
pp_P20_6_5_6	0.147346	1.85265	0.01069	0.01069	46.58990
pp_P14_3_4_4	0.261923	1.73808	0.01159	0.01162	0.89189
pp_P16_5_3_5	0.242574	1.75743	0.01325	0.01330	57.76920
pp_P17_5_4_5	0.160387	1.83961	0.01339	0.01339	48.26490
pp_P19_7_4_5	0.312901	1.6871	0.01351	0.01352	68.16280
pp_P19_6_4_6	0.200438	1.79956	0.01371	0.01372	55.37530
pp_P17_6_3_5	0.28771	1.71229	0.01652	0.01653	64.15100
pp_P14_4_3_4	0.198961	1.80104	0.01702	0.01701	50.56230
pp_P8_2_1_2	0.469118	1.53088	0.01916	0.01916	58.09020
pp_P19_5_5_6	0.191288	1.80871	0.01933	0.01934	28.20400
pp_P11_3_2_3	0.248901	1.7511	0.02000	0.02002	53.85780
pp_P19_4_6_6	0.178343	1.82166	0.02240	0.02244	0.58067
pp_P19_7_3_6	0.244255	1.75574	0.02268	0.02268	64.76510
pp_P12_4_2_3	0.427041	1.57296	0.02272	0.02274	65.85850
pp_P17_8_3_3	0.317615	1.68238	0.02571	0.02575	90.00000
pp_P19_6_3_7	0.293144	1.70686	0.02591	0.02591	60.27240
pp_P11_2_3_3	0.328184	1.67182	0.02624	0.02625	0.44316
pp_P16_4_4_5	0.225254	1.77475	0.02729	0.02732	26.68840
pp_P20_8_4_5	0.355659	1.64434	0.02802	0.02802	74.42440
pp_P18_4_5_6	0.221732	1.77827	0.02916	0.02921	0.72687
pp_P16_6_3_4	0.39848	1.60152	0.02965	0.02967	71.03840
pp_P20_6_4_7	0.174875	1.82512	0.02983	0.02983	53.41310
pp_P18_5_4_6	0.1691	1.8309	0.03346	0.03348	44.24630
pp_P20_4_6_7	0.179257	1.82074	0.03446	0.03450	0.55759
pp_P16_3_5_5	0.214352	1.78565	0.03457	0.03458	0.40233
pp_P17_5_3_6	0.215341	1.78466	0.03475	0.03477	56.24220
pp_P14_5_2_4	0.334799	1.6652	0.03624	0.03625	65.51300
pp_P16_6_2_5	0.285173	1.71483	0.03772	0.03773	65.82450
pp_P20_5_5_7	0.19221	1.80779	0.04010	0.04008	20.58350
pp_P13_6_2_2	0.423735	1.57627	0.04090	0.04092	90.00000
pp_P13_3_3_4	0.27097	1.72903	0.04104	0.04106	24.63440
pp_P15_3_4_5	0.266515	1.73349	0.04210	0.04214	0.55358

name	c_l	c_a	Δ_l	Δ_a	θ
pp_P14_4_2_5	0.373008	1.62699	0.04241	0.04245	59.08600
pp_P15_4_3_5	0.18284	1.81716	0.04269	0.04283	47.11020
pp_P18_7_3_5	0.317334	1.68267	0.04573	0.04578	68.64240
pp_P18_3_6_6	0.178723	1.82128	0.04662	0.04668	0.42139
pp_P18_9_3_3	0.283807	1.71619	0.04713	0.04719	90.00000
pp_P20_8_3_6	0.264057	1.73594	0.04889	0.04893	67.35140
pp_P17_3_5_6	0.203691	1.79631	0.04895	0.04900	0.41290
pp_P17_7_3_4	0.45593	1.54407	0.05285	0.05285	77.09250
pp_P19_5_4_7	0.176829	1.82317	0.05362	0.05365	42.72280
pp_P19_4_5_7	0.21986	1.78014	0.05365	0.05365	0.79567
pp_P19_3_6_7	0.161405	1.83859	0.05501	0.05502	0.35334
pp_P17_4_4_6	0.226377	1.77362	0.05540	0.05548	18.15260
pp_P18_5_3_7	0.250378	1.74962	0.05639	0.05642	55.17570
pp_P13_2_4_4	0.248419	1.75158	0.05575	0.05682	0.38556
pp_P20_3_7_7	0.137384	1.86262	0.05833	0.05833	0.39890
pp_P12_3_2_4	0.275826	1.72417	0.05945	0.05944	50.96150
pp_P12_2_3_4	0.334818	1.66518	0.06423	0.06425	0.38424
pp_P13_5_2_3	0.530889	1.46911	0.06540	0.06545	73.73710
pp_P9_3_1_2	0.537084	1.46292	0.06584	0.06583	68.15800
pp_P11_4_1_3	0.470457	1.52954	0.06657	0.06661	66.42390
pp_P8_1_2_2	0.429654	1.57035	0.06653	0.06667	0.18589
pp_P20_3_6_8	0.204172	1.79583	0.06718	0.06727	0.43322
pp_P10_2_2_3	0.350837	1.64916	0.06787	0.06791	21.78910
pp_P16_4_3_6	0.200007	1.79999	0.06866	0.06866	46.46890
pp_P18_3_5_7	0.24435	1.75565	0.06868	0.06868	0.42585
pp_P17_7_2_5	0.297884	1.70212	0.06912	0.06915	67.64410
pp_P20_5_4_8	0.18141	1.81859	0.07115	0.07115	43.54940
pp_P19_8_3_5	0.342397	1.6576	0.07116	0.07127	71.93310
pp_P18_8_3_4	0.510874	1.48913	0.07230	0.07231	81.58250
pp_P14_2_4_5	0.240316	1.75968	0.07263	0.07268	0.34282
pp_P14_7_2_2	0.36809	1.63191	0.07293	0.07301	90.00000
pp_P20_4_5_8	0.216832	1.78317	0.07466	0.07465	0.77276
pp_P16_3_4_6	0.265956	1.73404	0.07491	0.07489	0.53657
pp_P9_4_1_1	0.636505	1.36349	0.07718	0.07718	90.00000
pp_P15_6_2_4	0.383565	1.61643	0.07824	0.07823	69.08350
pp_P15_2_5_5	0.170963	1.82904	0.07897	0.07911	0.35585
pp_P14_3_3_5	0.273535	1.72647	0.08055	0.08058	14.88350
pp_P18_4_4_7	0.226562	1.77344	0.08081	0.08080	11.32180

name	c_l	c_a	Δ_l	Δ_a	θ
pp_P9_2_1_3	0.549376	1.45062	0.08565	0.08566	55.78010
pp_P19_9_3_4	0.562102	1.4379	0.08630	0.08633	84.91100
pp_P16_2_5_6	0.157313	1.84269	0.08787	0.08795	0.31031
pp_P19_3_5_8	0.240503	1.7595	0.09025	0.09053	0.54762
pp_P20_9_3_5	0.360251	1.63975	0.09105	0.09109	74.30090
pp_P18_8_2_5	0.315688	1.68431	0.09286	0.09295	69.09850
pp_P17_4_3_7	0.233501	1.7665	0.09327	0.09343	45.66130
pp_P20_10_3_4	0.608431	1.39157	0.09498	0.09498	87.43640
pp_P17_2_6_6	0.124891	1.87511	0.09524	0.09526	0.28885
pp_P17_2_5_7	0.230871	1.76913	0.09602	0.09605	0.33479
pp_P15_2_4_6	0.303489	1.69651	0.09670	0.09662	0.42498
pp_P13_3_2_5	0.314684	1.68532	0.09671	0.09675	50.11980
pp_P14_6_2_3	0.613042	1.38696	0.09921	0.09928	79.04060

2.4 hp

2.4.1 Regular Cages

name	θ	name	θ	name	θ
hp_P6_1_1_1	0.0	hp_P12_5_2_2	90.0	hp_P17_6_4_4	60.4745
hp_P7_2_1_1	66.7135	hp_P13_4_3_3	48.9376	hp_P18_5_5_5	0.0
hp_P8_3_1_1	90.0	hp_P14_5_3_3	66.7135	hp_P18_7_4_4	72.2173
hp_P9_2_2_2	0.0	hp_P15_4_4_4	0.0	hp_P19_6_5_5	40.558
hp_P10_3_2_2	55.7519	hp_P15_6_3_3	79.5111	hp_P19_8_4_4	81.7483
hp_P11_4_2_2	75.5798	hp_P16_5_4_4	44.1566	hp_P20_7_5_5	55.7519
hp_P12_3_3_3	0.0	hp_P16_7_3_3	90.0	hp_P20_9_4_4	90.0

2.4.2 Near-Miss Cages

name	c_l	c_a	Δ_l	Δ_a	θ
hp_P19_7_4_5	0.239201	1.7608	0.00038	0.00038	63.92960
hp_P14_5_2_4	0.295862	1.70414	0.00398	0.00398	65.72360
hp_P12_4_2_3	0.334587	1.66541	0.00403	0.00403	63.02240
hp_P19_7_3_6	0.22027	1.77973	0.00426	0.00426	65.27770
hp_P16_6_2_5	0.295598	1.7044	0.00895	0.00896	67.24710
hp_P17_6_3_5	0.256172	1.74383	0.00927	0.00930	62.77050
hp_P16_6_3_4	0.339814	1.66019	0.01122	0.01122	68.09020
hp_P15_5_3_4	0.222076	1.77792	0.01259	0.01259	57.61380
hp_P18_6_4_5	0.156466	1.84353	0.01309	0.01311	52.69810
hp_P20_7_4_6	0.20252	1.79748	0.01442	0.01446	59.17420
hp_P20_8_4_5	0.309363	1.69064	0.01516	0.01516	71.61150
hp_P18_7_3_5	0.283329	1.71667	0.01935	0.01938	67.71410
hp_P20_6_5_6	0.185943	1.81406	0.01944	0.01947	30.13590
hp_P20_5_6_6	0.183198	1.8168	0.02118	0.02119	0.71072
hp_P20_8_3_6	0.239252	1.76075	0.02197	0.02197	67.68630
hp_P17_5_4_5	0.209236	1.79076	0.02560	0.02561	33.28670
hp_P17_8_3_3	0.317816	1.68218	0.02574	0.02576	90.00000
hp_P9_3_1_2	0.49092	1.50908	0.02730	0.02730	67.31370
hp_P19_5_5_6	0.208922	1.79108	0.02782	0.02782	0.96180
hp_P17_4_5_5	0.212466	1.78753	0.02810	0.02811	0.53694
hp_P20_7_3_7	0.234423	1.76558	0.02931	0.02025	64.96880
hp_P15_5_2_5	0.380189	1.61981	0.03151	0.02584	65.01650
hp_P18_6_3_6	0.214823	1.78518	0.03229	0.03231	61.58960
hp_P11_4_1_3	0.487247	1.51275	0.03244	0.03243	67.85460
hp_P19_6_4_6	0.155578	1.84442	0.03286	0.03289	48.25320
hp_P14_4_3_4	0.241415	1.75858	0.03484	0.03484	37.71190
hp_P16_5_3_5	0.188189	1.81181	0.03695	0.03695	54.01710
hp_P17_7_3_4	0.392452	1.60755	0.03710	0.03710	74.74090
hp_P16_4_4_5	0.246702	1.7533	0.03767	0.03770	0.81948
hp_P10_3_1_3	0.660693	1.33931	0.03785	0.03465	65.15850
hp_P14_3_4_4	0.265435	1.73456	0.03968	0.03970	0.48285
hp_P13_4_2_4	0.307512	1.69249	0.04003	0.04004	59.87270
hp_P13_5_2_3	0.449314	1.55069	0.04009	0.04012	71.58870
hp_P13_6_2_2	0.424231	1.57577	0.04093	0.04094	90.00000
hp_P17_7_2_5	0.291573	1.70843	0.04116	0.04119	68.64840
hp_P19_4_6_6	0.178837	1.82116	0.04358	0.04358	0.58138
hp_P18_4_5_6	0.19547	1.80453	0.04385	0.04395	0.47926
hp_P15_6_2_4	0.336232	1.66377	0.04510	0.04512	68.95610

name	c_l	c_a	Δ_l	Δ_a	θ
hp_P19_8_3_5	0.304702	1.6953	0.04601	0.04601	70.96590
hp_P18_9_3_3	0.283992	1.71601	0.04712	0.04721	90.00000
hp_P11_3_2_3	0.29846	1.70154	0.04836	0.04840	44.54770
hp_P20_5_5_7	0.207992	1.79201	0.05228	0.05228	0.83421
hp_P18_5_4_6	0.212604	1.7874	0.05265	0.05272	23.47810
hp_P20_6_4_7	0.163432	1.83657	0.05297	0.05300	46.27120
hp_P20_4_6_7	0.159457	1.84054	0.05345	0.05346	0.53665
hp_P13_3_3_4	0.298839	1.70116	0.05367	0.05375	0.77048
hp_P19_6_3_7	0.269153	1.73085	0.05648	0.04650	61.33500
hp_P8_2_1_2	0.453372	1.54663	0.05764	0.05766	55.04780
hp_P16_3_5_5	0.215938	1.78406	0.05897	0.05896	0.38663
hp_P11_2_3_3	0.326964	1.67304	0.05965	0.05974	0.35511
hp_P15_3_4_5	0.235426	1.76457	0.05992	0.05992	0.54587
hp_P18_8_3_4	0.433525	1.56647	0.06083	0.06087	79.15080
hp_P17_5_3_6	0.216118	1.78388	0.06191	0.06194	53.82450
hp_P18_8_2_5	0.28432	1.71568	0.06511	0.06519	69.73020
hp_P19_4_5_7	0.228282	1.77172	0.06628	0.06630	0.50204
hp_P18_3_6_6	0.180582	1.81942	0.06758	0.06764	0.37230
hp_P20_9_3_5	0.319889	1.68011	0.06765	0.06766	73.20480
hp_P17_4_4_6	0.245723	1.75428	0.06984	0.06983	0.57867
hp_P17_3_5_6	0.192836	1.80716	0.07067	0.07082	0.39457
hp_P15_4_3_5	0.240351	1.75965	0.07086	0.07085	29.67580
hp_P14_4_2_5	0.412878	1.58712	0.07284	0.07279	59.32560
hp_P14_7_2_2	0.3677	1.6323	0.07297	0.07302	90.00000
hp_P19_3_6_7	0.164506	1.83549	0.07481	0.07495	0.40385
hp_P9_4_1_1	0.636136	1.36386	0.07714	0.07716	90.00000
hp_P19_5_4_7	0.215575	1.78442	0.07776	0.07779	2.61436
hp_P20_3_7_7	0.139984	1.86002	0.07807	0.07828	0.41864
hp_P16_7_2_4	0.365144	1.63486	0.07843	0.07839	71.17450
hp_P19_9_3_4	0.46579	1.53421	0.07913	0.07916	82.13400
hp_P14_6_2_3	0.516505	1.4835	0.07995	0.07992	76.71630
hp_P10_2_2_3	0.372414	1.62759	0.08193	0.08197	0.71792
hp_P12_5_1_3	0.47276	1.52724	0.08248	0.08246	69.36680
hp_P19_9_2_5	0.2921	1.7079	0.08250	0.08258	70.62740
hp_P13_2_4_4	0.251189	1.74881	0.08430	0.08470	0.39269
hp_P20_3_6_8	0.187939	1.81206	0.08509	0.08516	0.36729
hp_P18_5_3_7	0.246452	1.75355	0.08507	0.08519	52.15290
hp_P18_3_5_7	0.232328	1.76767	0.08631	0.08658	0.41119

name	c_l	c_a	Δ_l	Δ_a	θ
hp_P12_2_3_4	0.296973	1.70303	0.08681	0.08679	0.37233
hp_P20_4_5_8	0.22744	1.77256	0.08865	0.08867	0.73192
hp_P16_3_4_6	0.277889	1.72211	0.08969	0.08980	0.55441
hp_P20_10_3_4	0.490624	1.50938	0.09157	0.09160	84.22590
hp_P12_3_2_4	0.27514	1.72486	0.09480	0.09488	40.21720
hp_P20_10_2_5	0.278868	1.72113	0.09654	0.09655	71.28800
hp_P18_4_4_7	0.24516	1.75484	0.09686	0.09687	0.67253
hp_P14_2_4_5	0.226588	1.77341	0.09717	0.09723	0.25863
hp_P14_3_3_5	0.301051	1.69895	0.09762	0.09765	0.70044
hp_P20_5_4_8	0.213801	1.7862	0.09853	0.09883	1.44842

2.5 7p

2.5.1 Regular Cages

name	θ	name	θ	name	θ
7p_P7_2_1_1	61.7088	7p_P14_5_3_3	61.7088	7p_P18_7_4_4	68.5218
7p_P8_3_1_1	90.0	7p_P15_6_3_3	77.3937	7p_P19_6_5_5	24.3774
7p_P10_3_2_2	47.5689	7p_P16_5_4_4	30.6696	7p_P19_8_4_4	80.0921
7p_P11_4_2_2	72.6289	7p_P16_7_3_3	90.0	7p_P20_7_5_5	47.5689
7p_P12_5_2_2	90.0	7p_P17_6_4_4	53.7847	7p_P20_9_4_4	90.0
7p_P13_4_3_3	38.0456				

2.5.2 Near-Miss Cages

name	c_l	c_a	Δ_l	Δ_a	θ
7p_P18_7_3_5	0.262159	1.73784	0.00195	0.00195	67.91600
7p_P16_6_3_4	0.28632	1.71368	0.00214	0.00214	66.04300
7p_P9_3_1_2	0.515839	1.48416	0.00282	0.00282	67.87500
7p_P20_8_3_6	0.222363	1.77764	0.00493	0.00493	68.91530
7p_P20_8_4_5	0.275024	1.72498	0.00532	0.00532	69.64490
7p_P19_7_4_5	0.182163	1.81784	0.00953	0.00953	59.95360
7p_P11_4_1_3	0.493943	1.50606	0.00979	0.00980	69.74630
7p_P16_6_2_5	0.269153	1.73085	0.01211	0.00765	69.30560
7p_P14_5_2_4	0.311082	1.68892	0.01664	0.01665	66.95010
7p_P18_5_5_5	0.218766	1.78123	0.01761	0.01761	0.86255
7p_P15_4_4_4	0.262694	1.73731	0.02021	0.02022	0.78136
7p_P12_4_2_3	0.266416	1.73358	0.02120	0.02121	61.11190
7p_P13_5_2_3	0.401529	1.59847	0.02125	0.02126	70.80560
7p_P19_7_3_6	0.219613	1.78039	0.02175	0.02176	66.83760
7p_P18_6_4_5	0.189262	1.81074	0.02216	0.02217	43.62980
7p_P17_7_2_5	0.29868	1.70132	0.02363	0.02369	70.21590
7p_P12_3_3_3	0.343961	1.65604	0.02404	0.02407	0.66078
7p_P17_7_3_4	0.354877	1.64512	0.02413	0.02413	73.55220
7p_P15_6_2_4	0.30774	1.69226	0.02435	0.02436	69.81850
7p_P20_6_5_6	0.202254	1.79775	0.02475	0.02475	1.77513
7p_P17_6_3_5	0.235325	1.76467	0.02541	0.02540	62.27780
7p_P15_5_3_4	0.209706	1.79029	0.02561	0.02565	51.63160
7p_P17_8_3_3	0.317418	1.68258	0.02575	0.02574	90.00000
7p_P20_7_4_6	0.164275	1.83572	0.02786	0.02788	55.78790
7p_P19_8_3_5	0.283022	1.71698	0.02900	0.02900	71.08420
7p_P9_2_2_2	0.467191	1.53281	0.02951	0.02952	0.63233
7p_P17_5_4_5	0.23817	1.76183	0.03214	0.03213	2.47090
7p_P19_5_5_6	0.203805	1.79619	0.03543	0.03545	0.70098
7p_P20_5_6_6	0.183505	1.8165	0.03675	0.03679	0.57838
7p_P6_1_1_1	0.780108	1.21989	0.04071	0.04071	0.56035
7p_P13_6_2_2	0.424079	1.57592	0.04093	0.04094	90.00000
7p_P14_4_3_4	0.28166	1.71834	0.04437	0.04438	15.74590
7p_P16_4_4_5	0.246483	1.75352	0.04582	0.04584	0.61219
7p_P17_4_5_5	0.213385	1.78661	0.04586	0.04586	0.57677
7p_P18_9_3_3	0.284079	1.71592	0.04719	0.04721	90.00000
7p_P19_6_4_6	0.191001	1.809	0.04716	0.04721	35.54090
7p_P18_8_2_5	0.283417	1.71658	0.04860	0.04863	70.97050
7p_P18_8_3_4	0.388622	1.61138	0.04978	0.04980	77.91130

name	c_l	c_a	Δ_l	Δ_a	θ
7p_P18_6_3_6	0.221716	1.77828	0.05107	0.05114	63.12950
7p_P20_9_3_5	0.296552	1.70345	0.05145	0.05150	73.16010
7p_P20_7_3_7	0.177828	1.82217	0.05574	0.03172	67.76380
7p_P16_5_3_5	0.204323	1.79568	0.05637	0.05646	46.76480
7p_P16_7_2_4	0.335701	1.6643	0.05801	0.05803	71.67740
7p_P19_4_6_6	0.178746	1.82125	0.05910	0.05912	0.44659
7p_P18_4_5_6	0.1892	1.8108	0.05996	0.05999	0.50144
7p_P15_5_2_5	0.288403	1.7116	0.06006	0.04031	67.84570
7p_P14_3_4_4	0.268082	1.73192	0.06056	0.06057	0.39305
7p_P13_4_2_4	0.323772	1.67623	0.06063	0.06065	59.84980
7p_P20_5_5_7	0.213112	1.78689	0.06133	0.06145	0.68066
7p_P12_5_1_3	0.482076	1.51792	0.06227	0.06230	70.73600
7p_P18_5_4_6	0.229558	1.77044	0.06264	0.06267	0.99030
7p_P13_3_3_4	0.302399	1.6976	0.06286	0.06293	0.48076
7p_P14_6_2_3	0.461246	1.53875	0.06321	0.06322	75.74590
7p_P11_3_2_3	0.353559	1.64644	0.06552	0.06558	29.26780
7p_P19_9_2_5	0.276325	1.72368	0.06642	0.06649	71.61800
7p_P20_4_6_7	0.16174	1.83826	0.06804	0.06806	0.55097
7p_P10_3_1_3	0.57544	1.42456	0.06874	0.05585	68.05650
7p_P19_9_3_4	0.411742	1.58826	0.07005	0.07005	80.63920
7p_P20_6_4_7	0.196809	1.80319	0.07107	0.07117	26.02240
7p_P14_7_2_2	0.367505	1.63249	0.07302	0.07301	90.00000
7p_P10_4_1_2	0.506945	1.49305	0.07501	0.07501	72.57440
7p_P16_3_5_5	0.216761	1.78324	0.07676	0.07688	0.37062
7p_P9_4_1_1	0.636251	1.36375	0.07712	0.07717	90.00000
7p_P19_4_5_7	0.226997	1.773	0.07705	0.07719	0.58717
7p_P15_3_4_5	0.237413	1.76259	0.07891	0.07893	0.42246
7p_P17_4_4_6	0.254742	1.74526	0.08034	0.08044	0.66868
7p_P17_8_2_4	0.348772	1.65123	0.08198	0.08204	72.96890
7p_P20_10_2_5	0.256386	1.74361	0.08276	0.08277	72.13690
7p_P18_3_6_6	0.180773	1.81923	0.08315	0.08319	0.40264
7p_P17_5_3_6	0.203126	1.79687	0.08344	0.08352	45.59690
7p_P15_4_3_5	0.270852	1.72915	0.08411	0.08419	0.76552
7p_P20_10_3_4	0.425772	1.57423	0.08423	0.08422	82.42100
7p_P11_2_3_3	0.329096	1.6709	0.08480	0.08481	0.24919
7p_P17_3_5_6	0.195959	1.80404	0.08726	0.08745	0.46520
7p_P19_6_3_7	0.204174	1.79583	0.08775	0.05553	64.98580
7p_P19_5_4_7	0.22753	1.77247	0.08888	0.08885	0.88222

name	c_l	c_a	Δ_l	Δ_a	θ
7p_P19_3_6_7	0.165882	1.83412	0.08928	0.08928	0.42170
7p_P8_2_1_2	0.494617	1.50538	0.09187	0.09197	48.92240
7p_P20_3_7_7	0.141235	1.85877	0.09260	0.09265	0.46860
7p_P15_7_2_3	0.493111	1.50689	0.09361	0.09363	78.57640
7p_P10_2_2_3	0.414663	1.58534	0.09525	0.09528	0.43806
7p_P18_9_2_4	0.348226	1.65177	0.09716	0.09731	73.86430
7p_P20_3_6_8	0.179704	1.8203	0.09737	0.09775	0.48432
7p_P13_6_1_3	0.401971	1.59803	0.09815	0.09820	71.48570
7p_P20_4_5_8	0.234047	1.76595	0.09912	0.09913	0.64357

2.6 8p

2.6.1 Regular Cages

name	θ	name	θ	name	θ
8p_P7_2_1_1	56.5624	8p_P13_4_3_3	23.7103	8p_P17_6_4_4	46.6145
8p_P8_3_1_1	90.0	8p_P14_5_3_3	56.5624	8p_P18_7_4_4	64.8056
8p_P10_3_2_2	38.3324	8p_P15_6_3_3	75.3008	8p_P19_8_4_4	78.4603
8p_P11_4_2_2	69.6893	8p_P16_5_4_4	0.0	8p_P20_7_5_5	38.3324
8p_P12_5_2_2	90.0	8p_P16_7_3_3	90.0	8p_P20_9_4_4	90.0

2.6.2 Near-Miss Cages

name	c_l	c_a	Δ_l	Δ_a	θ
8p_P20_8_4_5	0.239263	1.76074	0.00214	0.00214	68.08110
8p_P19_6_5_5	0.220069	1.77993	0.00498	0.00498	1.85796
8p_P20_8_3_6	0.219661	1.78034	0.00645	0.00645	70.56860
8p_P11_4_1_3	0.40738	1.59262	0.00686	0.00449	71.73990
8p_P13_5_2_3	0.370127	1.62987	0.00771	0.00771	70.79730
8p_P18_7_3_5	0.248446	1.75155	0.01011	0.01011	68.78310
8p_P15_6_2_4	0.303677	1.69632	0.01089	0.01089	71.11990
8p_P17_7_2_5	0.302689	1.69731	0.01167	0.01168	71.92740
8p_P16_6_3_4	0.242932	1.75707	0.01205	0.01207	64.35570
8p_P17_7_3_4	0.329798	1.6702	0.01412	0.01414	73.04860
8p_P9_3_1_2	0.541074	1.45893	0.01497	0.01499	68.97530
8p_P19_7_4_5	0.166352	1.83365	0.01664	0.01666	55.37350
8p_P19_8_3_5	0.268033	1.73197	0.01715	0.01717	71.75520
8p_P17_8_3_3	0.317719	1.68228	0.02575	0.02575	90.00000
8p_P18_6_4_5	0.215319	1.78468	0.02768	0.02767	31.86410
8p_P16_6_2_5	0.218776	1.78122	0.02974	0.01645	71.51700
8p_P20_6_5_6	0.197335	1.80266	0.02998	0.02998	1.02530
8p_P18_5_5_5	0.219959	1.78004	0.03112	0.03112	0.82978
8p_P14_5_2_4	0.320716	1.67928	0.03155	0.03156	68.74600
8p_P19_7_3_6	0.224984	1.77502	0.03422	0.03428	69.03340
8p_P15_5_3_4	0.244742	1.75526	0.03510	0.03510	43.36940
8p_P15_4_4_4	0.263807	1.73619	0.03571	0.03574	0.74454
8p_P12_4_2_3	0.279798	1.7202	0.03577	0.03575	58.51470
8p_P17_6_3_5	0.224386	1.77561	0.03624	0.03623	62.23560
8p_P18_8_2_5	0.289232	1.71077	0.03766	0.03767	72.35930
8p_P17_5_4_5	0.233187	1.76681	0.03782	0.03785	1.10503
8p_P20_7_4_6	0.164396	1.8356	0.03854	0.03858	50.00970
8p_P20_9_3_5	0.281451	1.71855	0.04011	0.04011	73.61720
8p_P18_8_3_4	0.360635	1.63936	0.04074	0.04073	77.37760
8p_P13_6_2_2	0.4239	1.5761	0.04088	0.04093	90.00000
8p_P12_3_3_3	0.348177	1.65182	0.04268	0.04273	0.65097
8p_P16_7_2_4	0.31668	1.68332	0.04425	0.04425	72.58340
8p_P18_9_3_3	0.284441	1.71556	0.04720	0.04724	90.00000
8p_P19_5_5_6	0.192139	1.80786	0.04725	0.04740	0.70304
8p_P12_5_1_3	0.486527	1.51347	0.04842	0.04843	72.20570
8p_P20_5_6_6	0.184315	1.81568	0.04867	0.04871	0.59845
8p_P14_4_3_4	0.282413	1.71759	0.05029	0.05029	1.21663
8p_P14_6_2_3	0.425762	1.57424	0.05029	0.05029	75.51240

name	c_l	c_a	Δ_l	Δ_a	θ
8p_P9_2_2_2	0.467037	1.53296	0.05225	0.05226	0.52937
8p_P19_6_4_6	0.217424	1.78258	0.05514	0.05515	3.29992
8p_P19_9_2_5	0.28071	1.71929	0.05664	0.05669	72.80070
8p_P16_4_4_5	0.238653	1.76135	0.05808	0.05820	0.52352
8p_P10_4_1_2	0.511016	1.48898	0.05881	0.05883	73.11110
8p_P17_4_5_5	0.214206	1.78579	0.05939	0.05944	0.48962
8p_P19_9_3_4	0.378526	1.62147	0.06185	0.06194	79.88360
8p_P18_6_3_6	0.22408	1.77592	0.06568	0.06567	66.26560
8p_P20_5_5_7	0.216272	1.78373	0.06846	0.06846	0.48155
8p_P17_8_2_4	0.328391	1.67161	0.06889	0.06890	73.63500
8p_P18_5_4_6	0.234881	1.76512	0.07017	0.07021	0.86309
8p_P16_5_3_5	0.23578	1.76422	0.07068	0.07069	31.51970
8p_P19_4_6_6	0.178967	1.82103	0.07088	0.07100	0.43838
8p_P18_4_5_6	0.191504	1.8085	0.07256	0.07265	0.48748
8p_P14_7_2_2	0.367751	1.63225	0.07303	0.07301	90.00000
8p_P20_10_2_5	0.243581	1.75642	0.07324	0.07327	73.16360
8p_P6_1_1_1	0.80167	1.19833	0.07328	0.07333	0.35593
8p_P11_3_2_3	0.387448	1.61255	0.07433	0.07436	1.19959
8p_P13_3_3_4	0.316623	1.68338	0.07523	0.07531	0.60737
8p_P13_4_2_4	0.335037	1.66496	0.07616	0.07625	60.60570
8p_P14_3_4_4	0.269458	1.73054	0.07653	0.07660	0.51286
8p_P20_10_3_4	0.387047	1.61295	0.07694	0.07693	81.46950
8p_P9_4_1_1	0.63643	1.36357	0.07718	0.07717	90.00000
8p_P20_4_6_7	0.162915	1.83708	0.07877	0.07906	0.51316
8p_P20_6_4_7	0.211207	1.78879	0.07973	0.07972	1.24479
8p_P15_7_2_3	0.453119	1.54688	0.08197	0.08203	78.06960
8p_P20_7_3_7	0.134896	1.8651	0.08276	0.03740	70.78440
8p_P18_9_2_4	0.327171	1.67283	0.08513	0.08524	74.39020
8p_P13_6_1_3	0.402127	1.59787	0.08653	0.08651	72.69030
8p_P15_5_2_5	0.234423	1.76558	0.08666	0.04818	70.88190
8p_P19_4_5_7	0.217018	1.78298	0.08812	0.08824	0.53732
8p_P17_4_4_6	0.260667	1.73933	0.08865	0.08872	0.59366
8p_P16_3_5_5	0.217341	1.78266	0.09032	0.09060	0.41244
8p_P15_4_3_5	0.280743	1.71926	0.09270	0.09270	0.89258
8p_P15_3_4_5	0.240612	1.75939	0.09362	0.09365	0.40684
8p_P18_3_6_6	0.181211	1.81879	0.09497	0.09504	0.45186
8p_P19_5_4_7	0.235732	1.76427	0.09763	0.09763	0.97213
8p_P10_3_1_3	0.467735	1.53226	0.09937	0.06669	71.10940

name	c_l	c_a	Δ_l	Δ_a	θ
8p_P17_3_5_6	0.197314	1.80269	0.09972	0.09988	0.53001

2.7 9p

2.7.1 Regular Cages

name	θ	name	θ	name	θ
9p_P7_2_1_1	51.164	9p_P14_5_3_3	51.164	9p_P18_7_4_4	61.0233
9p_P8_3_1_1	90.0	9p_P15_6_3_3	73.2156	9p_P19_8_4_4	76.8405
9p_P10_3_2_2	26.7843	9p_P16_7_3_3	90.0	9p_P20_7_5_5	26.7843
9p_P11_4_2_2	66.7323	9p_P17_6_4_4	38.5812	9p_P20_9_4_4	90.0
9p_P12_5_2_2	90.0				

2.7.2 Near-Miss Cages

name	c_l	c_a	Δ_l	Δ_a	θ
9p_P15_6_2_4	0.312152	1.68785	0.00145	0.00145	72.55920
9p_P13_5_2_3	0.349165	1.65083	0.00216	0.00216	71.26210
9p_P17_7_2_5	0.30528	1.69472	0.00323	0.00323	73.58740
9p_P13_4_3_3	0.346112	1.65389	0.00441	0.00441	2.08588
9p_P17_7_3_4	0.311856	1.68814	0.00648	0.00648	72.97820
9p_P20_8_4_5	0.208398	1.7916	0.00804	0.00804	66.65730
9p_P19_8_3_5	0.257883	1.74212	0.00870	0.00871	72.71320
9p_P16_5_4_4	0.271613	1.72839	0.01205	0.01207	1.30554
9p_P20_8_3_6	0.225073	1.77493	0.01450	0.01451	72.34300
9p_P19_6_5_5	0.219326	1.78067	0.01541	0.01543	1.14039
9p_P18_7_3_5	0.239114	1.76089	0.01876	0.01878	70.10340
9p_P16_6_3_4	0.203548	1.79645	0.01923	0.01925	62.64980
9p_P11_4_1_3	0.354813	1.64519	0.02074	0.01244	73.58410
9p_P19_7_4_5	0.189623	1.81038	0.02213	0.02216	49.55310
9p_P17_8_3_3	0.317514	1.68249	0.02570	0.02574	90.00000
9p_P9_3_1_2	0.558664	1.44134	0.02853	0.02853	70.39840
9p_P18_8_2_5	0.292519	1.70748	0.02986	0.02986	73.73100
9p_P18_6_4_5	0.236739	1.76326	0.03078	0.03101	9.98368
9p_P20_9_3_5	0.27037	1.72963	0.03179	0.03187	74.30890
9p_P18_8_3_4	0.341219	1.65878	0.03354	0.03354	77.25870
9p_P16_7_2_4	0.308088	1.69191	0.03471	0.03478	73.63920
9p_P20_6_5_6	0.211054	1.78895	0.03491	0.03499	0.89919
9p_P12_5_1_3	0.489393	1.51061	0.03851	0.03851	73.63090
9p_P14_6_2_3	0.401998	1.598	0.04047	0.04050	75.69290
9p_P13_6_2_2	0.423875	1.57613	0.04094	0.04092	90.00000
9p_P15_5_3_4	0.270747	1.72925	0.04097	0.04096	32.70000
9p_P18_5_5_5	0.220813	1.77919	0.04178	0.04178	0.81233
9p_P14_5_2_4	0.327473	1.67253	0.04250	0.04249	70.85640
9p_P19_7_3_6	0.228323	1.77168	0.04298	0.04303	71.46530
9p_P17_5_4_5	0.245491	1.75451	0.04322	0.04326	0.88559
9p_P17_6_3_5	0.233232	1.76677	0.04496	0.04491	62.32070
9p_P16_6_2_5	0.177828	1.82217	0.04578	0.02142	73.51540
9p_P20_7_4_6	0.186893	1.81311	0.04700	0.04707	39.93640
9p_P18_9_3_3	0.2842	1.7158	0.04719	0.04720	90.00000
9p_P10_4_1_2	0.522977	1.47702	0.04737	0.04736	73.92810
9p_P15_4_4_4	0.265237	1.73476	0.04795	0.04803	0.66025
9p_P12_4_2_3	0.3114	1.6886	0.04892	0.04896	53.86530
9p_P19_9_2_5	0.28027	1.71973	0.05000	0.05002	73.97670

name	c_l	c_a	Δ_l	Δ_a	θ
9p_P19_9_3_4	0.35579	1.64421	0.05523	0.05525	79.57910
9p_P14_4_3_4	0.301113	1.69889	0.05647	0.05650	0.86592
9p_P19_5_5_6	0.19548	1.80452	0.05742	0.05749	0.73306
9p_P12_3_3_3	0.351152	1.64885	0.05751	0.05755	0.62729
9p_P20_5_6_6	0.184528	1.81547	0.05799	0.05807	0.48146
9p_P17_8_2_4	0.314491	1.68551	0.05950	0.05949	74.45010
9p_P19_6_4_6	0.220716	1.77928	0.06051	0.06056	1.44602
9p_P20_10_2_5	0.243275	1.75672	0.06703	0.06705	74.23330
9p_P16_4_4_5	0.237082	1.76292	0.06926	0.06933	0.50201
9p_P17_4_5_5	0.214149	1.78585	0.07004	0.07014	0.38724
9p_P9_2_2_2	0.466891	1.53311	0.07025	0.07025	0.58674
9p_P20_10_3_4	0.361609	1.63839	0.07063	0.07073	80.99700
9p_P15_7_2_3	0.426167	1.57383	0.07280	0.07285	77.98380
9p_P14_7_2_2	0.368121	1.63188	0.07293	0.07301	90.00000
9p_P20_5_5_7	0.216871	1.78313	0.07433	0.07434	0.60611
9p_P18_6_3_6	0.224938	1.77506	0.07581	0.07589	70.16220
9p_P18_5_4_6	0.2389	1.7611	0.07632	0.07632	0.86108
9p_P9_4_1_1	0.636466	1.36353	0.07714	0.07718	90.00000
9p_P13_6_1_3	0.401579	1.59842	0.07784	0.07781	73.88690
9p_P18_9_2_4	0.30664	1.69336	0.07798	0.07800	75.06100
9p_P16_5_3_5	0.257527	1.74247	0.07806	0.07810	2.00540
9p_P19_4_6_6	0.17868	1.82132	0.08022	0.08030	0.50426
9p_P11_3_2_3	0.397688	1.60231	0.08033	0.08033	0.66800
9p_P18_4_5_6	0.193469	1.80653	0.08252	0.08250	0.56020
9p_P20_6_4_7	0.217848	1.78215	0.08612	0.08616	1.22737
9p_P20_4_6_7	0.163445	1.83655	0.08750	0.08760	0.43653
9p_P13_3_3_4	0.310979	1.68902	0.08802	0.08802	0.58177
9p_P14_3_4_4	0.270292	1.72971	0.08925	0.08926	0.46224
9p_P13_4_2_4	0.354813	1.64519	0.08657	0.08984	61.77090
9p_P16_8_2_3	0.429617	1.57038	0.09363	0.09370	79.31540
9p_P17_4_4_6	0.265511	1.73449	0.09524	0.09534	0.61156
9p_P19_4_5_7	0.210773	1.78923	0.09676	0.09675	0.41205
9p_P11_5_1_2	0.498712	1.50129	0.09689	0.09699	75.68130
9p_P15_4_3_5	0.288523	1.71148	0.09958	0.09968	0.81109
9p_P6_1_1_1	0.817077	1.18292	0.09985	0.09990	0.52063

2.8 10p

2.8.1 Regular Cages

name	θ	name	θ	name	θ
10p_P7_2_1_1	45.3752	10p_P14_5_3_3	45.3752	10p_P18_7_4_4	57.1338
10p_P8_3_1_1	90.0	10p_P15_6_3_3	71.1266	10p_P19_8_4_4	75.225
10p_P10_3_2_2	0.0	10p_P16_7_3_3	90.0	10p_P20_7_5_5	0.0
10p_P11_4_2_2	63.7362	10p_P17_6_4_4	28.8749	10p_P20_9_4_4	90.0
10p_P12_5_2_2	90.0				

2.8.2 Near-Miss Cages

name	c_l	c_a	Δ_l	Δ_a	θ
10p_P17_7_3_4	0.299669	1.70033	0.00054	0.00054	73.20280
10p_P19_8_3_5	0.250531	1.74947	0.00254	0.00254	73.80330
10p_P17_7_2_5	0.144544	1.85546	0.00448	0.00187	75.08530
10p_P15_6_2_4	0.31928	1.68072	0.00548	0.00548	73.98300
10p_P13_5_2_3	0.335369	1.66463	0.00952	0.00952	72.03780
10p_P20_8_4_5	0.179802	1.8202	0.01263	0.01262	65.17300
10p_P13_4_3_3	0.344983	1.65502	0.01568	0.01569	1.22433
10p_P20_8_3_6	0.22863	1.77137	0.02020	0.02023	74.04380
10p_P16_5_4_4	0.273206	1.72679	0.02178	0.02182	1.14446
10p_P19_6_5_5	0.219996	1.78	0.02389	0.02391	1.16874
10p_P18_8_2_5	0.295551	1.70445	0.02412	0.02413	75.00740
10p_P18_7_3_5	0.236571	1.76343	0.02525	0.02525	71.68420
10p_P17_8_3_3	0.317356	1.68264	0.02575	0.02574	90.00000
10p_P20_9_3_5	0.262752	1.73725	0.02573	0.02576	75.11000
10p_P19_7_4_5	0.207904	1.7921	0.02589	0.02590	42.68110
10p_P16_6_3_4	0.216083	1.78392	0.02613	0.02615	59.91970
10p_P18_8_3_4	0.32695	1.67305	0.02791	0.02790	77.38850
10p_P16_7_2_4	0.314986	1.68501	0.02823	0.02829	74.71970
10p_P12_5_1_3	0.490115	1.50989	0.03122	0.03124	74.94190
10p_P11_4_1_3	0.30903	1.69097	0.03234	0.01752	75.17260
10p_P14_6_2_3	0.385353	1.61465	0.03304	0.03306	76.10350
10p_P10_4_1_2	0.531885	1.46812	0.03877	0.03876	74.83490
10p_P9_3_1_2	0.570926	1.42907	0.03897	0.03897	72.01190
10p_P13_6_2_2	0.42423	1.57577	0.04093	0.04094	90.00000
10p_P20_6_5_6	0.20605	1.79395	0.04230	0.04232	0.76511
10p_P15_5_3_4	0.289948	1.71005	0.04464	0.04463	16.44110
10p_P19_9_2_5	0.280023	1.71998	0.04492	0.04498	75.09470
10p_P18_9_3_3	0.283952	1.71605	0.04718	0.04720	90.00000
10p_P17_5_4_5	0.260789	1.73921	0.04829	0.04830	0.87049
10p_P19_7_3_6	0.231326	1.76867	0.04893	0.04892	73.72150
10p_P19_9_3_4	0.340291	1.65971	0.04986	0.04987	79.52860
10p_P14_5_2_4	0.333082	1.66692	0.05027	0.05032	72.96730
10p_P18_5_5_5	0.221391	1.77861	0.05040	0.05040	0.71687
10p_P20_7_4_6	0.204967	1.79503	0.05218	0.05218	25.26440
10p_P17_6_3_5	0.240423	1.75958	0.05232	0.05234	63.09940
10p_P17_8_2_4	0.305177	1.69482	0.05259	0.05258	75.31000
10p_P15_4_4_4	0.266056	1.73394	0.05801	0.05800	0.72608
10p_P12_4_2_3	0.341277	1.65872	0.05887	0.05892	46.66450

name	c_l	c_a	Δ_l	Δ_a	θ
10p_P16_6_2_5	0.144544	1.85546	0.06026	0.02397	75.18470
10p_P14_4_3_4	0.314687	1.68531	0.06185	0.06182	0.95056
10p_P20_10_2_5	0.243865	1.75613	0.06219	0.06229	75.25320
10p_P19_6_4_6	0.222871	1.77713	0.06489	0.06499	1.23797
10p_P19_5_5_6	0.196835	1.80316	0.06552	0.06553	0.68958
10p_P15_7_2_3	0.406453	1.59355	0.06560	0.06559	78.13010
10p_P20_10_3_4	0.343732	1.65627	0.06551	0.06560	80.80900
10p_P20_5_6_6	0.184601	1.8154	0.06562	0.06560	0.61306
10p_P12_3_3_3	0.353319	1.64668	0.06958	0.06962	0.62761
10p_P13_6_1_3	0.401198	1.5988	0.07131	0.07129	75.00360
10p_P18_9_2_4	0.29085	1.70915	0.07234	0.07239	75.78840
10p_P14_7_2_2	0.368175	1.63183	0.07303	0.07303	90.00000
10p_P9_4_1_1	0.636218	1.36378	0.07717	0.07716	90.00000
10p_P16_4_4_5	0.236356	1.76364	0.07832	0.07831	0.63709
10p_P17_4_5_5	0.214763	1.78524	0.07870	0.07879	0.56280
10p_P18_5_4_6	0.241979	1.75802	0.08116	0.08127	0.75711
10p_P20_5_5_7	0.210653	1.78935	0.08115	0.08129	0.51109
10p_P16_5_3_5	0.267454	1.73255	0.08336	0.08338	1.42353
10p_P18_6_3_6	0.218776	1.78122	0.08255	0.08380	73.28150
10p_P9_2_2_2	0.4677	1.5323	0.08491	0.08492	0.44984
10p_P11_3_2_3	0.405416	1.59458	0.08531	0.08533	0.76218
10p_P16_8_2_3	0.408752	1.59125	0.08688	0.08688	79.30580
10p_P19_4_6_6	0.178621	1.82138	0.08778	0.08779	0.53947
10p_P11_5_1_2	0.508031	1.49197	0.08880	0.08880	76.22790
10p_P18_4_5_6	0.193944	1.80606	0.09042	0.09040	0.46164
10p_P20_6_4_7	0.221857	1.77814	0.09138	0.09136	1.10779
10p_P20_4_6_7	0.164169	1.83583	0.09420	0.09444	0.58031
10p_P13_3_3_4	0.314156	1.68584	0.09884	0.09888	0.64753
10p_P14_3_4_4	0.271591	1.72841	0.09946	0.09956	0.53755

2.9 ta

2.9.1 Regular Cages

name	θ	name	θ	name	θ
ta_P8_1_1_1_1	54.7356	ta_P16_3_3_3_3	54.7356	ta_P20_4_4_4_4	54.7356
ta_P12_2_2_2_2	54.7356				

2.9.2 Near-Miss Cages

name	c_l	c_a	Δ_l	Δ_a	θ
ta_P19_3_4_4_4	0.317607	1.68239	0.02502	0.02504	51.24780
ta_P17_4_3_3_3	0.377957	1.62204	0.03355	0.03356	57.91640
ta_P15_2_3_3_3	0.384175	1.61583	0.03772	0.03777	50.52540
ta_P18_3_4_3_4	0.65839	1.34161	0.04641	0.04641	61.79920
ta_P18_4_3_4_3	0.474155	1.52584	0.05103	0.05102	46.53220
ta_P18_2_4_4_4	0.308343	1.69166	0.05265	0.05264	46.61760
ta_P13_3_2_2_2	0.513037	1.48696	0.05361	0.05362	58.50720
ta_P18_5_3_3_3	0.381194	1.61881	0.06297	0.06308	60.62270
ta_P17_3_3_4_3	0.586766	1.41323	0.06384	0.06384	40.30410
ta_P20_2_5_4_5	0.175422	1.82458	0.06398	0.06398	50.59380
ta_P11_1_2_2_2	0.535058	1.46494	0.06443	0.06451	48.89150
ta_P17_2_4_3_4	0.300778	1.69922	0.06549	0.06554	55.05920
ta_P19_4_4_3_4	0.597907	1.40209	0.06669	0.06667	65.05710
ta_P20_3_4_5_4	0.422562	1.57744	0.07010	0.07022	38.81420
ta_P14_2_3_2_3	0.839511	1.16049	0.07270	0.07266	63.43200
ta_P19_5_3_4_3	0.273284	1.72672	0.07615	0.07615	52.04420
ta_P19_4_3_4_4	0.804127	1.19587	0.07649	0.07657	50.87470
ta_P20_5_3_4_4	0.56315	1.43685	0.07810	0.07813	55.99540
ta_P20_3_4_4_5	0.568477	1.43152	0.07871	0.07875	53.14640
ta_P19_4_3_5_3	0.533023	1.46698	0.08126	0.08128	26.52620
ta_P20_3_5_3_5	0.599185	1.40081	0.08120	0.08134	66.56780
ta_P14_1_3_3_3	0.40738	1.59262	0.07861	0.08331	43.60970
ta_P20_5_4_3_4	0.563852	1.43615	0.08486	0.08493	67.72090
ta_P14_3_2_3_2	0.559223	1.44078	0.08599	0.08605	45.13040
ta_P19_6_3_3_3	0.369423	1.63058	0.08700	0.08715	62.93580
ta_P20_5_3_5_3	1.99877	0.00123027	0.00002	0.08898	9.98390
ta_P17_3_3_3_4	0.75668	1.24332	0.09178	0.09179	58.49130
ta_P19_3_4_3_5	0.583745	1.41625	0.09218	0.09218	63.61570
ta_P17_1_4_4_4	0.40738	1.59262	0.06606	0.09376	37.56200
ta_P19_2_5_3_5	0.476849	1.52315	0.09543	0.09542	61.63990
ta_P19_2_4_5_4	0.375254	1.62475	0.09606	0.09618	33.55990
ta_P14_4_2_2_2	0.493872	1.50613	0.09631	0.09634	61.43700
ta_P19_2_4_4_5	0.40911	1.59089	0.09739	0.09739	47.91210
ta_P18_4_3_3_4	0.560968	1.43903	0.09844	0.09852	62.44150
ta_P20_1_5_5_5	0.436516	1.56348	0.05040	0.09853	30.99820
ta_P13_2_2_3_2	0.750905	1.2491	0.09856	0.09863	35.75290
ta_P16_2_3_4_3	0.506618	1.49338	0.09881	0.09885	35.64790
ta_P9_2_1_1_1	0.885426	1.11457	0.09990	0.09993	59.93290

2.10 sa

2.10.1 Near-Miss Cages

name	c_l	c_a	Δ_l	Δ_a	θ
sa_P14_4_2_2_2	0.667935	1.33207	0.00731	0.00731	60.03770
sa_P18_5_3_3_3	0.472829	1.52717	0.01330	0.01330	57.37910
sa_P19_6_3_3_3	0.52799	1.47201	0.01506	0.01506	61.29090
sa_P9_2_1_1_1	0.970111	1.02989	0.02076	0.02078	57.53440
sa_P20_7_3_3_3	0.535614	1.46439	0.03876	0.03876	64.08820
sa_P13_3_2_2_2	0.561544	1.43846	0.03980	0.03981	54.66880
sa_P17_4_3_3_3	0.408261	1.59174	0.04412	0.04419	52.46000
sa_P15_5_2_2_2	0.699535	1.30047	0.04704	0.04702	63.79250
sa_P20_6_3_4_3	0.590951	1.40905	0.04798	0.04794	46.17830
sa_P20_5_4_3_4	0.289552	1.71045	0.05257	0.05273	60.88550
sa_P10_3_1_1_1	1.10288	0.897121	0.06432	0.06430	63.79340
sa_P19_5_3_4_3	0.53321	1.46679	0.06620	0.06624	39.13880
sa_P20_4_4_4_4	0.297788	1.70221	0.06707	0.06705	44.68970
sa_P19_4_4_3_4	0.190546	1.80945	0.06907	0.06908	56.36050
sa_P16_4_3_2_3	0.718821	1.28118	0.06961	0.06965	65.64410
sa_P19_5_3_3_4	0.76536	1.23464	0.07177	0.07174	60.51750
sa_P16_3_3_3_3	0.384277	1.61572	0.07904	0.07901	45.40680
sa_P18_6_2_3_3	0.612088	1.38791	0.08204	0.08212	60.17070
sa_P15_4_2_3_2	0.726629	1.27337	0.08220	0.08220	37.84350
sa_P20_6_3_3_4	0.527844	1.47216	0.08485	0.08486	64.02650
sa_P16_6_2_2_2	0.55303	1.44697	0.08559	0.08560	65.42820
sa_P16_5_2_3_2	0.556039	1.44396	0.08886	0.08890	50.65420
sa_P15_3_3_2_3	0.251687	1.74831	0.08977	0.08986	57.76880
sa_P18_3_4_3_4	0.192337	1.80766	0.08993	0.09009	51.04730
sa_P17_5_3_2_3	0.813407	1.18659	0.09089	0.09093	69.45880
sa_P19_3_4_4_4	0.290791	1.70921	0.09262	0.09268	35.74680
sa_P18_4_3_3_4	0.647302	1.3527	0.09409	0.09405	54.22170
sa_P18_4_3_4_3	0.435432	1.56457	0.09478	0.09478	32.11060
sa_P12_2_2_2_2	0.510924	1.48908	0.09494	0.09503	46.38020
sa_P19_7_2_3_3	0.47537	1.52463	0.09821	0.09824	63.14590
sa_P17_5_2_3_3	0.661217	1.33878	0.09967	0.09968	55.20350

2.11 pa

2.11.1 Regular Cages

name	θ	name	θ	name	θ
pa_P10_3_1_1_1	63.4349	pa_P15_5_2_2_2	63.4349	pa_P20_7_3_3_3	63.4349

2.11.2 Near-Miss Cages

name	c_l	c_a	Δ_l	Δ_a	θ
pa_P19_6_3_3_3	0.562126	1.43787	0.02699	0.02701	59.03550
pa_P16_6_2_2_2	0.622873	1.37713	0.04227	0.04228	65.99690
pa_P14_4_2_2_2	0.686295	1.31371	0.04427	0.04426	57.74550
pa_P18_5_3_3_3	0.445377	1.55462	0.05666	0.05661	53.15770
pa_P18_6_3_2_3	0.850028	1.14997	0.06983	0.06988	70.33630
pa_P20_6_3_3_4	0.662719	1.33728	0.07062	0.07062	61.57300
pa_P17_5_3_2_3	0.461003	1.539	0.07325	0.07335	66.23870
pa_P20_6_3_4_3	0.476735	1.52326	0.07354	0.07351	36.87480
pa_P20_5_4_3_4	0.17954	1.82046	0.07475	0.07476	58.78650
pa_P17_7_2_2_2	0.50382	1.49618	0.07708	0.07708	67.07570
pa_P19_7_2_3_3	0.548639	1.45136	0.07865	0.07862	62.65430
pa_P11_4_1_1_1	0.86866	1.13134	0.08178	0.08179	66.28320
pa_P20_8_2_3_3	0.48184	1.51816	0.08227	0.08228	65.02480
pa_P16_5_2_3_2	0.695368	1.30463	0.08442	0.08447	38.75130
pa_P17_6_2_3_2	0.635545	1.36446	0.08517	0.08516	52.41630
pa_P19_7_3_2_3	0.823641	1.17636	0.08520	0.08526	71.49360
pa_P9_2_1_1_1	0.89245	1.10755	0.08612	0.08622	54.52560
pa_P17_4_3_3_3	0.371684	1.62832	0.08739	0.08739	44.75480
pa_P16_4_3_2_3	0.217585	1.78241	0.08973	0.08975	61.27670
pa_P18_7_2_3_2	0.408087	1.59191	0.09241	0.09247	60.96870
pa_P13_3_2_2_2	0.536188	1.46381	0.09316	0.09318	49.18200
pa_P19_4_4_3_4	0.204179	1.79582	0.09435	0.09449	52.29200
pa_P18_6_2_3_3	0.555248	1.44475	0.09528	0.09526	58.39130
pa_P20_6_4_2_4	0.769359	1.23064	0.09727	0.09730	72.40890
pa_P19_5_3_4_3	0.251189	1.74881	0.08653	0.09968	1.70354
pa_P19_5_4_2_4	0.552279	1.44772	0.09975	0.09986	69.23420

2.12 ha

2.12.1 Near-Miss Cages

name	c_l	c_a	Δ_l	Δ_a	θ
ha_P16_6_2_2_2	0.665182	1.33482	0.01074	0.01074	67.33670
ha_P20_7_3_3_3	0.617539	1.38246	0.02800	0.02800	63.34680
ha_P15_5_2_2_2	0.801368	1.19863	0.03371	0.03369	63.69330
ha_P11_4_1_1_1	0.914431	1.08557	0.04185	0.04182	67.83640
ha_P10_3_1_1_1	1.21337	0.786628	0.04358	0.04359	63.52630
ha_P17_7_2_2_2	0.544062	1.45594	0.04975	0.04976	68.49640
ha_P19_6_3_3_3	0.536877	1.46312	0.05407	0.05408	56.59960
ha_P19_7_3_2_3	0.872575	1.12743	0.06121	0.06122	71.92530
ha_P18_6_3_2_3	0.502631	1.49737	0.06941	0.06946	69.49030
ha_P20_8_2_3_3	0.510599	1.4894	0.07278	0.07283	66.22500
ha_P14_4_2_2_2	0.649727	1.35027	0.07664	0.07662	55.37960
ha_P18_8_2_2_2	0.44861	1.55139	0.07860	0.07859	69.05890
ha_P17_6_2_3_2	0.717584	1.28242	0.08101	0.08101	44.52900
ha_P17_5_3_2_3	0.207083	1.79292	0.08158	0.08165	66.06830
ha_P20_8_3_2_3	0.75971	1.24029	0.08223	0.08223	72.39230
ha_P18_5_3_3_3	0.391738	1.60826	0.08227	0.08237	48.28900
ha_P19_7_2_3_3	0.490576	1.50942	0.08643	0.08643	63.86650
ha_P18_7_2_3_2	0.621844	1.37816	0.08727	0.08728	58.87290
ha_P20_6_3_4_3	0.195521	1.80448	0.08874	0.08881	0.24359
ha_P19_8_2_3_2	0.393245	1.60676	0.08993	0.08998	64.92170
ha_P20_6_3_3_4	0.456019	1.54398	0.09064	0.09064	60.34320
ha_P20_5_4_3_4	0.242823	1.75718	0.09179	0.09199	56.31540
ha_P20_6_4_2_4	0.507299	1.4927	0.09711	0.09719	70.98600
ha_P16_5_2_2_3	0.821061	1.17894	0.09860	0.09861	66.23780
ha_P19_9_2_2_2	0.373509	1.62649	0.09877	0.09884	69.41520
ha_P16_5_2_3_2	0.204174	1.79583	0.07382	0.09893	0.69603

2.13 7a

2.13.1 Near-Miss Cages

name	c_l	c_a	Δ_l	Δ_a	θ
7a_P16_6_2_2_2	0.697832	1.30217	0.01286	0.01288	69.18220
7a_P11_4_1_1_1	0.948919	1.05108	0.01309	0.01309	69.73560
7a_P17_7_2_2_2	0.572768	1.42723	0.02993	0.02992	70.17880
7a_P20_7_3_3_3	0.636671	1.36333	0.04899	0.04899	63.64310
7a_P15_5_2_2_2	0.829143	1.17086	0.05936	0.05935	64.53450
7a_P18_8_2_2_2	0.475205	1.5248	0.06156	0.06156	70.61510
7a_P20_8_3_2_3	0.816226	1.18377	0.06418	0.06418	73.37970
7a_P19_7_3_2_3	0.659897	1.3401	0.06482	0.06484	72.42450
7a_P18_6_3_2_3	0.20613	1.79387	0.07077	0.07082	69.84890
7a_P19_6_3_3_3	0.490259	1.50974	0.07207	0.07208	53.99410
7a_P10_3_1_1_1	1.33931	0.660693	0.06247	0.07431	61.64450
7a_P20_8_2_3_3	0.468134	1.53187	0.07686	0.07693	68.27440
7a_P18_7_2_3_2	0.746373	1.25363	0.08168	0.08170	55.38600
7a_P12_5_1_1_1	0.725352	1.27465	0.08191	0.08191	70.28790
7a_P19_9_2_2_2	0.398304	1.6017	0.08382	0.08392	70.89610
7a_P19_8_2_3_2	0.533579	1.46642	0.08835	0.08836	65.71610
7a_P17_5_3_2_3	0.189159	1.81084	0.08999	0.08999	68.70990
7a_P19_7_2_3_3	0.472224	1.52778	0.09171	0.09172	66.42360
7a_P20_9_2_3_2	0.382657	1.61734	0.09214	0.09213	68.07010
7a_P14_4_2_2_2	0.596747	1.40325	0.09740	0.09742	52.99670
7a_P17_6_2_2_3	0.712141	1.28786	0.09843	0.09847	70.67020
7a_P17_6_2_3_2	1	1	0.04211	0.09879	17.65480
7a_P20_10_2_2_2	0.337573	1.66243	0.09932	0.09936	71.11030
7a_P20_6_3_3_4	0.389452	1.61055	0.09981	0.09974	60.97920

2.14 8a

2.14.1 Near-Miss Cages

name	c_l	c_a	Δ_l	Δ_a	θ
8a_P11_4_1_1_1	0.975388	1.02461	0.00800	0.00800	71.75800
8a_P17_7_2_2_2	0.594113	1.40589	0.01526	0.01526	71.91740
8a_P16_6_2_2_2	0.723326	1.27667	0.03083	0.03085	71.34840
8a_P18_8_2_2_2	0.493957	1.50604	0.04902	0.04900	72.16440
8a_P20_8_3_2_3	0.766437	1.23356	0.06069	0.06075	74.36110
8a_P20_7_3_3_3	0.812831	1.18717	0.04309	0.06164	58.96150
8a_P12_5_1_1_1	0.748455	1.25155	0.06485	0.06492	71.91050
8a_P19_7_3_2_3	0.451291	1.54871	0.06709	0.06711	73.32470
8a_P19_9_2_2_2	0.416367	1.58363	0.07297	0.07298	72.34190
8a_P18_6_3_2_3	0.193381	1.80662	0.07582	0.07592	72.06360
8a_P15_5_2_2_2	1	1	0.05795	0.07653	60.87150
8a_P20_8_2_3_3	0.443048	1.55695	0.07898	0.07898	70.71900
8a_P18_7_2_3_2	0.763991	1.23601	0.08190	0.08185	51.68490
8a_P19_6_3_3_3	0.439547	1.56045	0.08412	0.08417	51.25260
8a_P20_9_2_3_2	0.399664	1.60034	0.08666	0.08665	69.93830
8a_P19_8_2_3_2	0.652228	1.34777	0.08691	0.08692	66.92210
8a_P20_10_2_2_2	0.354412	1.64559	0.08969	0.08971	72.49310
8a_P17_6_2_2_3	0.735585	1.26442	0.09302	0.09299	72.37450
8a_P10_3_1_1_1	1.29205	0.707946	0.08800	0.09425	62.29230
8a_P17_6_2_3_2	0.218776	1.78122	0.06787	0.09899	0.70338
8a_P17_5_3_2_3	0.245069	1.75493	0.09883	0.09900	71.80030
8a_P20_7_3_2_4	0.530389	1.46961	0.09945	0.09944	73.67110
8a_P18_7_2_2_3	0.62013	1.37987	0.09981	0.09980	73.06490

2.15 9a

2.15.1 Near-Miss Cages

name	c_l	c_a	Δ_l	Δ_a	θ
9a_P17_7_2_2_2	0.609897	1.3901	0.00433	0.00433	73.58360
9a_P11_4_1_1_1	0.995816	1.00418	0.02344	0.02345	73.71430
9a_P18_8_2_2_2	0.509244	1.49076	0.03967	0.03967	73.62010
9a_P16_6_2_2_2	0.743387	1.25661	0.04425	0.04426	73.58860
9a_P12_5_1_1_1	0.76548	1.23452	0.05229	0.05231	73.42060
9a_P20_8_3_2_3	0.673178	1.32682	0.06250	0.06248	75.35630
9a_P19_9_2_2_2	0.429793	1.57021	0.06485	0.06485	73.69100
9a_P19_7_3_2_3	0.297111	1.70289	0.06739	0.06737	74.48280
9a_P20_7_3_3_3	0.758578	1.24142	0.04998	0.07386	56.56030
9a_P18_6_3_2_3	0.183059	1.81694	0.07892	0.07904	74.09450
9a_P20_8_2_3_3	0.449094	1.55091	0.08102	0.08106	73.05150
9a_P20_10_2_2_2	0.367439	1.63256	0.08250	0.08252	73.77820
9a_P19_8_2_3_2	0.754069	1.24593	0.08586	0.08587	68.69860
9a_P20_9_2_3_2	0.467018	1.53298	0.08630	0.08632	71.43090
9a_P18_7_2_3_2	0.7249	1.2751	0.08820	0.08815	49.35530
9a_P17_6_2_2_3	0.715404	1.2846	0.09305	0.09304	74.22720
9a_P18_7_2_2_3	0.637155	1.36284	0.09610	0.09614	74.49780
9a_P20_7_3_2_4	0.539764	1.46024	0.09646	0.09660	74.88960
9a_P15_5_2_2_2	1	1	0.05639	0.09697	56.12110
9a_P19_6_3_3_3	0.40738	1.59262	0.08584	0.09726	44.63810
9a_P19_8_2_2_3	0.564109	1.43589	0.09953	0.09951	74.60580

2.16 10a

2.16.1 Near-Miss Cages

name	c_l	c_a	Δ_l	Δ_a	θ
10a_P17_7_2_2_2	0.622682	1.37732	0.00386	0.00386	75.10190
10a_P18_8_2_2_2	0.520129	1.47987	0.03259	0.03259	74.93890
10a_P11_4_1_1_1	1.01085	0.989147	0.03467	0.03468	75.47110
10a_P12_5_1_1_1	0.779183	1.22082	0.04283	0.04282	74.78850
10a_P16_6_2_2_2	0.757653	1.24235	0.05385	0.05386	75.63630
10a_P19_9_2_2_2	0.44021	1.55979	0.05864	0.05864	74.90810
10a_P20_8_3_2_3	0.593796	1.4062	0.06351	0.06351	76.36090
10a_P19_7_3_2_3	0.20984	1.79016	0.06659	0.06663	75.67950
10a_P20_10_2_2_2	0.377342	1.62266	0.07700	0.07703	74.93730
10a_P18_6_3_2_3	0.175013	1.82499	0.08100	0.08104	75.82740
10a_P20_8_2_3_3	0.496983	1.50302	0.08478	0.08477	75.07510
10a_P19_8_2_3_2	0.842579	1.15742	0.08512	0.08516	71.29370
10a_P20_9_2_3_2	0.520447	1.47955	0.08590	0.08591	72.92140
10a_P20_7_3_3_3	0.707946	1.29205	0.05063	0.08622	52.32410
10a_P13_6_1_1_1	0.617002	1.383	0.09223	0.09225	74.66140
10a_P18_7_2_2_3	0.645351	1.35465	0.09392	0.09391	75.82900
10a_P17_6_2_2_3	0.692514	1.30749	0.09395	0.09403	76.01350
10a_P19_8_2_2_3	0.580184	1.41982	0.09644	0.09650	75.77700
10a_P18_7_2_3_2	0.354813	1.64519	0.05098	0.09803	1.77320
10a_P20_7_3_2_4	0.513172	1.48683	0.09813	0.09809	76.08830

2.17 Pte

2.17.1 Regular Cages

name	name	name
Pte_P6_1_1_1	Pte_P12_3_3_3	Pte_P18_5_5_5
Pte_P9_2_2_2	Pte_P15_4_4_4	

2.17.2 Near-Miss Cages

name	c_l	c_a	Δ_l	Δ_a
Pte_P20_5_6_6	0.407704	1.5923	0.03912	0.03913
Pte_P19_6_5_5	0.458729	1.54127	0.04326	0.04327
Pte_P17_4_5_5	0.475066	1.52493	0.05163	0.05168
Pte_P16_5_4_4	0.551012	1.44899	0.05799	0.05800
Pte_P14_3_4_4	0.58735	1.41265	0.07319	0.07318
Pte_P13_4_3_3	0.656933	1.34307	0.08040	0.08047
Pte_P19_4_6_6	0.403785	1.59621	0.08170	0.08169
Pte_P20_7_5_5	0.407097	1.5929	0.08297	0.08299
Pte_P18_4_5_6	0.347843	1.65216	0.09394	0.09393

2.18 Poc2

2.18.1 Regular Cages

name	name	name
Poc2_P8_1_1_1_1	Poc2_P16_3_3_3_3	Poc2_P20_4_4_4_4
Poc2_P12_2_2_2_2		

2.18.2 Near-Miss Cages

name	c_l	c_a	Δ_l	Δ_a
Poc2_P18_3_4_3_4	1.99543	0.00457088	0.00000	0.01563
Poc2_P14_2_3_2_3	1.99755	0.00245471	0.00000	0.02778
Poc2_P20_3_5_3_5	1.99397	0.0060256	0.00000	0.02778
Poc2_P16_2_4_2_4	1.92756	0.0724436	0.00002	0.04762
Poc2_P10_1_2_1_2	1	1	0.00003	0.06250
Poc2_P18_2_5_2_5	1.99149	0.00851138	0.00001	0.06250
Poc2_P20_2_6_2_6	1.98712	0.0128825	0.00001	0.07408

2.19 Pdo

2.19.1 Regular Cages

name	name	name
Pdo_P6_1_1_1	Pdo_P12_3_3_3	Pdo_P18_5_5_5
Pdo_P9_2_2_2	Pdo_P15_4_4_4	

2.20 Pic

2.20.1 Regular Cages

name	name	name
Pic_P10_1_1_1_1_1	Pic_P15_2_2_2_2_2	Pic_P20_3_3_3_3_3

2.20.2 Near-Miss Cages

name	c_l	c_a	Δ_l	Δ_a
Pic_P18_2_3_2_3_3	0.883585	1.11642	0.04420	0.04422
Pic_P19_2_3_3_3_3	1.16944	0.830559	0.05709	0.05712
Pic_P17_3_2_3_2_2	1.18418	0.815818	0.05981	0.05985
Pic_P13_1_2_1_2_2	0.467735	1.53226	0.06545	0.06049
Pic_P19_2_4_2_3_3	0.816133	1.18387	0.07433	0.07434
Pic_P16_2_2_3_2_2	1.41132	0.58868	0.08022	0.08024
Pic_P14_1_2_2_2_2	1.30707	0.692927	0.08900	0.08905
Pic_P20_2_3_4_3_3	1.05869	0.941308	0.08948	0.08950
Pic_P16_1_3_1_3_3	0.81521	1.18479	0.09204	0.09204
Pic_P17_1_4_1_3_3	1	1	0.03965	0.09333
Pic_P17_1_3_3_2_3	0.331131	1.66887	0.07692	0.09333
Pic_P17_1_3_2_3_3	1.01219	0.987809	0.09437	0.09435
Pic_P16_1_3_2_2_3	0.83511	1.16489	0.09504	0.09502

2.21 Att

2.21.1 Regular Cages

name	θ	name	θ	name	θ
Att_P8_1_2_2	54.7356	Att_P13_2_4_4	49.3306	Att_P17_2_6_6	21.1796
Att_P10_1_3_3	37.3774	Att_P15_2_5_5	37.3774	Att_P18_3_6_6	46.5233
Att_P12_1_4_4	0.486698	Att_P16_3_5_5	54.7356	Att_P20_3_7_7	37.3774

2.21.2 Near-Miss Cages

name	c_l	c_a	Δ_l	Δ_a	θ
Att_P16_2_5_6	0.227508	1.77249	0.00055	0.00055	29.30650
Att_P16_2_4_7	0.162803	1.8372	0.00085	0.00085	25.29370
Att_P20_3_4_10	0.158763	1.84124	0.00457	0.00457	18.87830
Att_P16_2_3_8	0.184321	1.81568	0.00469	0.00469	18.10900
Att_P11_1_3_4	0.273889	1.72611	0.00509	0.00509	27.48030
Att_P19_2_7_7	0.0839692	1.91603	0.00656	0.00658	0.00797
Att_P15_2_3_7	0.202687	1.79731	0.00709	0.00709	21.06020
Att_P20_3_5_9	0.136235	1.86376	0.00720	0.00720	24.88780
Att_P19_4_6_6	0.180213	1.81979	0.00776	0.00776	54.73560
Att_P17_2_5_7	0.183855	1.81614	0.00788	0.00788	26.57470
Att_P20_3_6_8	0.177378	1.82262	0.00860	0.00863	30.28130
Att_P18_2_6_7	0.206605	1.79339	0.00956	0.00956	20.29520
Att_P17_2_4_8	0.153477	1.84652	0.01020	0.01021	22.90960
Att_P15_2_4_6	0.207847	1.79215	0.01075	0.01076	28.33510
Att_P11_1_2_5	0.230341	1.76966	0.01176	0.01176	20.84000
Att_P19_3_6_7	0.223372	1.77663	0.01309	0.01310	37.79810
Att_P19_3_4_9	0.16187	1.83813	0.01310	0.01313	21.22550
Att_P10_1_2_4	0.269153	1.73085	0.01329	0.01330	24.86930
Att_P18_2_5_8	0.152657	1.84734	0.01489	0.01492	25.23180
Att_P20_2_7_8	0.202628	1.79737	0.01533	0.01534	8.64285
Att_P19_3_5_8	0.16416	1.83584	0.01610	0.01613	27.43770
Att_P19_2_6_8	0.163263	1.83674	0.01782	0.01784	23.34310
Att_P18_2_4_9	0.138296	1.8617	0.01901	0.01901	20.53690
Att_P14_2_3_6	0.206503	1.7935	0.02173	0.02175	24.12550
Att_P19_2_5_9	0.120236	1.87976	0.02252	0.02252	23.72880
Att_P12_1_3_5	0.181185	1.81881	0.02309	0.02314	25.16900
Att_P18_3_4_8	0.164949	1.83505	0.02352	0.02353	23.65380
Att_P14_2_4_5	0.287543	1.71246	0.02367	0.02368	36.35830
Att_P13_1_4_5	0.269153	1.73085	0.02394	0.02399	18.21880
Att_P20_2_6_9	0.132649	1.86735	0.02467	0.02470	24.12260
Att_P18_3_5_7	0.202893	1.79711	0.02743	0.02742	32.09960
Att_P14_1_5_5	1	1	0.00213	0.02778	0.00758
Att_P11_2_3_3	1.06675	0.933254	0.00539	0.02780	54.73560
Att_P14_3_4_4	0.262342	1.73766	0.02794	0.02796	54.73560
Att_P20_4_6_7	0.277972	1.72203	0.02941	0.02940	51.40810
Att_P20_2_5_10	0.107595	1.89241	0.02964	0.02964	21.98350
Att_P17_4_5_5	0.217343	1.78266	0.03006	0.03008	54.73560
Att_P20_5_6_6	0.185995	1.81401	0.03024	0.03028	54.73560

name	c_l	c_a	Δ_l	Δ_a	θ
Att_P17_3_5_6	0.289635	1.71036	0.03174	0.03174	45.22570
Att_P17_3_3_8	0.200515	1.79948	0.03174	0.03175	18.87140
Att_P13_2_2_6	0.268446	1.73155	0.03346	0.03352	17.86190
Att_P18_3_3_9	0.196066	1.80393	0.03354	0.03356	17.60370
Att_P12_1_2_6	0.205149	1.79485	0.03381	0.03385	17.43380
Att_P17_3_4_7	0.179566	1.82043	0.03701	0.03700	26.67180
Att_P15_1_5_6	0.201454	1.79855	0.03953	0.03953	6.58573
Att_P20_4_4_9	0.161256	1.83874	0.04004	0.04004	21.63050
Att_P13_1_3_6	0.158197	1.8418	0.04078	0.04081	22.93870
Att_P13_2_3_5	0.233355	1.76665	0.04211	0.04212	28.40980
Att_P14_1_4_6	0.160184	1.83982	0.04402	0.04404	22.87530
Att_P20_4_5_8	0.17625	1.82375	0.04582	0.04582	29.28420
Att_P9_1_2_3	0.344799	1.6552	0.04661	0.04660	32.56360
Att_P16_3_3_7	0.205508	1.79449	0.04752	0.04750	21.55870
Att_P16_1_6_6	1.12904	0.870964	0.00201	0.04762	0.00970
Att_P18_4_5_6	0.316114	1.68389	0.05044	0.05045	54.73560
Att_P14_2_2_7	0.321804	1.6782	0.05219	0.05219	17.26690
Att_P19_4_4_8	0.164308	1.83569	0.05314	0.05316	24.05850
Att_P9_1_1_4	0.335404	1.6646	0.05412	0.05409	17.54420
Att_P17_1_6_7	0.114667	1.88533	0.05571	0.05571	2.51689
Att_P15_3_4_5	0.420277	1.57972	0.05590	0.05593	54.23320
Att_P16_1_5_7	0.15578	1.84422	0.05652	0.05662	18.07910
Att_P16_3_4_6	0.235204	1.7648	0.05712	0.05714	32.69470
Att_P19_4_3_9	0.154052	1.84595	0.05722	0.05728	17.95730
Att_P12_2_2_5	0.275618	1.72438	0.05800	0.05805	21.43540
Att_P18_5_5_5	0.225192	1.77481	0.05813	0.05819	54.73560
Att_P15_1_4_7	0.124178	1.87582	0.05882	0.05892	23.00250
Att_P14_1_3_7	0.174153	1.82585	0.05996	0.06002	18.01080
Att_P18_1_7_7	1	1	0.00256	0.06250	0.00694
Att_P18_4_3_8	0.197746	1.80225	0.06342	0.06346	19.26890
Att_P19_4_5_7	0.231786	1.76821	0.06389	0.06394	38.42850
Att_P18_1_6_8	0.136341	1.86366	0.06552	0.06569	11.22830
Att_P15_4_4_4	0.272281	1.72772	0.06660	0.06667	54.73560
Att_P15_3_3_6	0.208338	1.79166	0.06698	0.06704	24.73610
Att_P19_1_7_8	0.0721148	1.92789	0.06855	0.06867	1.26071
Att_P12_2_3_4	0.4186	1.5814	0.06915	0.06919	45.12240
Att_P20_4_3_10	0.213589	1.78641	0.07017	0.07021	17.72080
Att_P17_1_5_8	0.11704	1.88296	0.07062	0.07065	21.44730

name	c_l	c_a	Δ_l	Δ_a	θ
Att_P17_4_2_8	0.243843	1.75616	0.07260	0.07260	13.39850
Att_P18_4_4_7	0.196911	1.80309	0.07266	0.07266	27.75780
Att_P20_1_8_8	1	1	0.00227	0.07407	0.00634
Att_P20_1_7_9	0.102003	1.898	0.07484	0.07497	6.06750
Att_P19_5_5_6	0.272566	1.72743	0.07703	0.07700	54.73560
Att_P12_3_3_3	0.344535	1.65547	0.07817	0.07822	54.73560
Att_P19_1_6_9	0.108567	1.89143	0.07821	0.07826	18.25310
Att_P16_1_4_8	0.179097	1.8209	0.07917	0.07921	18.06670
Att_P8_1_1_3	0.413303	1.5867	0.08031	0.08036	21.23380
Att_P20_5_4_8	0.172196	1.8278	0.08065	0.08100	24.23790
Att_P20_5_3_9	0.166595	1.8334	0.08099	0.08112	18.10790
Att_P18_1_5_9	0.0980357	1.90196	0.08137	0.08151	21.65940
Att_P14_3_2_6	0.266635	1.73337	0.08229	0.08228	18.39810
Att_P17_4_3_7	0.203062	1.79694	0.08212	0.08234	21.65480
Att_P19_6_5_5	0.232373	1.76763	0.08443	0.08443	54.73560
Att_P20_1_6_10	0.0895379	1.91046	0.08844	0.08844	20.43640
Att_P10_1_1_5	0.516715	1.48329	0.08850	0.08849	16.53940
Att_P15_3_2_7	0.230167	1.76983	0.09008	0.09008	17.87240
Att_P11_2_2_4	0.272094	1.72791	0.09015	0.09015	26.14650
Att_P16_4_4_5	0.340882	1.65912	0.09115	0.09119	54.73560
Att_P19_5_3_8	0.198346	1.80165	0.09210	0.09211	19.29490
Att_P20_5_5_7	0.335739	1.66426	0.09296	0.09294	54.73560
Att_P9_2_2_2	0.467735	1.53226	0.09544	0.09552	54.73560

2.22 Atc

2.22.1 Regular Cages

name	θ	name	θ	name	θ
Atc_P12_1_4_4	0.784723	Atc_P17_2_6_6	21.1796		

2.22.2 Near-Miss Cages

name	c_l	c_a	Δ_l	Δ_a	θ
Atc_P17_2_4_8	0.134896	1.8651	0.00057	0.00060	14.89140
Atc_P17_2_5_7	0.141173	1.85883	0.00130	0.00130	17.97200
Atc_P20_3_7_7	0.127917	1.87208	0.00233	0.00234	35.26440
Atc_P15_2_5_5	1.12904	0.870964	0.00031	0.00322	35.26440
Atc_P18_2_6_7	0.178905	1.82109	0.00502	0.00504	17.16680
Atc_P10_1_3_3	1.3834	0.616595	0.00046	0.00511	35.26440
Atc_P18_2_5_8	0.109648	1.89035	0.00632	0.00634	16.91160
Atc_P19_2_7_7	0.0835822	1.91642	0.00657	0.00658	0.01730
Atc_P11_1_2_5	0.172541	1.82746	0.00698	0.00699	13.43270
Atc_P18_2_4_9	0.111291	1.88871	0.00741	0.00741	13.37880
Atc_P11_1_3_4	0.198825	1.80118	0.00828	0.00829	18.79070
Atc_P16_2_3_8	0.14851	1.85149	0.00839	0.00840	11.69880
Atc_P16_2_4_7	0.144355	1.85564	0.00957	0.00958	16.28810
Atc_P16_2_5_6	0.208068	1.79193	0.00998	0.00998	20.55760
Atc_P12_1_3_5	0.141168	1.85883	0.01002	0.01002	16.90240
Atc_P19_2_6_8	0.120048	1.87995	0.01207	0.01212	17.41910
Atc_P12_1_2_6	0.147733	1.85227	0.01293	0.01294	10.91530
Atc_P19_2_5_9	0.096845	1.90315	0.01330	0.01331	15.81100
Atc_P20_3_4_10	0.14283	1.85717	0.01361	0.01370	12.18350
Atc_P20_3_5_9	0.140825	1.85917	0.01420	0.01433	15.78130
Atc_P20_2_7_8	0.137279	1.86272	0.01483	0.01486	12.22280
Atc_P18_3_6_6	0.169369	1.83063	0.01534	0.01539	35.26440
Atc_P20_3_6_8	0.156498	1.8435	0.01541	0.01541	19.14280
Atc_P20_2_6_9	0.0891251	1.91087	0.01808	0.01843	17.06250
Atc_P15_2_3_7	0.172076	1.82792	0.01884	0.01906	13.48570
Atc_P15_2_4_6	0.166854	1.83315	0.01948	0.01951	17.84270
Atc_P20_2_5_10	0.087093	1.91291	0.01951	0.01959	14.55870
Atc_P19_3_4_9	0.161202	1.8388	0.02024	0.02038	13.52410
Atc_P19_3_5_8	0.151436	1.84856	0.02129	0.02130	16.96180
Atc_P13_1_4_5	0.156352	1.84365	0.02218	0.02219	16.18530
Atc_P13_1_3_6	0.121314	1.87869	0.02599	0.02600	15.23570
Atc_P19_3_6_7	0.204702	1.7953	0.02676	0.02676	26.52270
Atc_P14_1_5_5	1	1	0.00212	0.02778	0.01217
Atc_P13_2_4_4	0.229096	1.7709	0.02807	0.02809	35.26440
Atc_P18_3_4_8	0.172388	1.82761	0.02889	0.02894	14.73610
Atc_P18_3_3_9	0.1594	1.8406	0.03019	0.03019	10.71300
Atc_P10_1_2_4	0.205577	1.79442	0.03116	0.03116	15.76670
Atc_P14_2_3_6	0.196882	1.80312	0.03126	0.03128	15.10680

name	c_l	c_a	Δ_l	Δ_a	θ
Atc_P18_3_5_7	0.17343	1.82657	0.03181	0.03190	18.95790
Atc_P16_3_5_5	0.215628	1.78437	0.03461	0.03465	35.26440
Atc_P14_2_4_5	0.246167	1.75383	0.03605	0.03604	22.75330
Atc_P14_1_4_6	0.101838	1.89816	0.03659	0.03664	16.87750
Atc_P17_3_3_8	0.194057	1.80594	0.03794	0.03794	12.00560
Atc_P19_4_6_6	0.185337	1.81466	0.03823	0.03830	35.26440
Atc_P14_1_3_7	0.105418	1.89458	0.03957	0.03965	13.30620
Atc_P17_3_4_7	0.180593	1.81941	0.04012	0.04018	15.97020
Atc_P20_4_3_10	0.172723	1.82728	0.04101	0.04107	9.53231
Atc_P15_1_5_6	0.127243	1.87276	0.04154	0.04155	11.07720
Atc_P20_4_4_9	0.163729	1.83627	0.04319	0.04319	13.31220
Atc_P13_2_2_6	0.236619	1.76338	0.04457	0.04458	11.42060
Atc_P20_4_5_8	0.151948	1.84805	0.04518	0.04519	16.71270
Atc_P13_2_3_5	0.22582	1.77418	0.04601	0.04603	16.88080
Atc_P14_2_2_7	0.202551	1.79745	0.04668	0.04674	10.42310
Atc_P16_1_6_6	0.933254	1.06675	0.00294	0.04762	0.00814
Atc_P15_1_4_7	0.0888115	1.91119	0.04840	0.04844	16.07710
Atc_P16_3_3_7	0.206515	1.79349	0.05139	0.05149	13.28490
Atc_P19_4_4_8	0.172	1.828	0.05459	0.05461	14.20690
Atc_P19_4_3_9	0.171371	1.82863	0.05460	0.05462	10.93480
Atc_P16_1_5_7	0.0831705	1.91683	0.05481	0.05481	15.88520
Atc_P16_3_4_6	0.193984	1.80602	0.05554	0.05549	18.07490
Atc_P20_4_6_7	0.226185	1.77382	0.05558	0.05558	35.26440
Atc_P17_3_5_6	0.354813	1.64519	0.03715	0.05593	29.18410
Atc_P17_1_6_7	0.100851	1.89915	0.05620	0.05626	5.41251
Atc_P16_1_4_8	0.0784409	1.92156	0.05847	0.05857	14.71670
Atc_P9_1_1_4	0.274134	1.72587	0.05877	0.05881	10.61780
Atc_P9_1_2_3	0.261432	1.73857	0.05966	0.05967	19.14730
Atc_P19_4_5_7	0.184023	1.81598	0.06078	0.06085	19.68090
Atc_P20_5_6_6	0.191033	1.80897	0.06090	0.06095	35.26440
Atc_P18_1_7_7	1	1	0.00248	0.06250	0.00915
Atc_P12_2_2_5	0.272398	1.7276	0.06343	0.06346	13.23480
Atc_P17_1_5_8	0.0676046	1.9324	0.06426	0.06440	16.17480
Atc_P17_4_5_5	0.222384	1.77762	0.06448	0.06461	35.26440
Atc_P18_4_3_8	0.193757	1.80624	0.06588	0.06587	11.80950
Atc_P14_3_4_4	0.267363	1.73264	0.06752	0.06767	35.26440
Atc_P18_1_6_8	0.0748241	1.92518	0.06765	0.06770	13.98130
Atc_P11_2_3_3	0.334404	1.6656	0.06818	0.06819	35.26440

name	c_l	c_a	Δ_l	Δ_a	θ
Atc_P15_3_3_6	0.218749	1.78125	0.06847	0.06848	14.45880
Atc_P18_4_4_7	0.180256	1.81974	0.06858	0.06865	15.34380
Atc_P19_1_7_8	0.0690162	1.93098	0.06871	0.06880	2.70424
Atc_P8_1_2_2	0.758578	1.24142	0.03754	0.07212	35.26440
Atc_P18_1_5_9	0.0606775	1.93932	0.07240	0.07246	15.43400
Atc_P20_1_8_8	1	1	0.00232	0.07407	0.02488
Atc_P19_1_6_9	0.0583288	1.94167	0.07602	0.07616	15.67460
Atc_P20_5_3_9	0.178796	1.8212	0.07748	0.07760	10.74080
Atc_P20_5_4_8	0.173903	1.8261	0.07832	0.07832	13.36060
Atc_P12_2_3_4	0.292716	1.70728	0.07881	0.07881	23.29950
Atc_P15_3_2_7	0.175703	1.8243	0.08184	0.08207	10.87810
Atc_P17_4_3_7	0.207804	1.7922	0.08263	0.08265	12.59090
Atc_P20_1_6_10	0.0492902	1.95071	0.08289	0.08294	15.60040
Atc_P10_1_1_5	0.354813	1.64519	0.08349	0.08356	9.86523
Atc_P18_4_5_6	0.258413	1.74159	0.08559	0.08560	35.26440
Atc_P14_3_2_6	0.259729	1.74027	0.08622	0.08626	11.33240
Atc_P11_2_1_5	0.344049	1.65595	0.08640	0.08646	8.24085
Atc_P20_5_5_7	0.194939	1.80506	0.08860	0.08857	20.31860
Atc_P19_5_2_9	0.21594	1.78406	0.09009	0.09009	7.90897
Atc_P17_4_4_6	0.209156	1.79084	0.09016	0.09028	18.09310
Atc_P14_3_3_5	0.232374	1.76763	0.09096	0.09096	16.34720
Atc_P11_2_2_4	0.290773	1.70923	0.09136	0.09136	14.95940
Atc_P19_5_3_8	0.203234	1.79677	0.09263	0.09267	11.13330
Atc_P18_5_5_5	0.230315	1.76969	0.09277	0.09281	35.26440
Atc_P19_5_4_7	0.183925	1.81607	0.09494	0.09504	14.46960

2.23 Ato

2.23.1 Regular Cages

name	θ	name	θ	name	θ
Ato_P8_1_2_2	0.286629	Ato_P14_3_4_4	37.1105	Ato_P19_4_6_6	22.9912
Ato_P11_2_3_3	29.945	Ato_P17_4_5_5	40.9602	Ato_P20_5_6_6	43.4027

2.23.2 Near-Miss Cages

name	c_l	c_a	Δ_l	Δ_a	θ
Ato_P16_3_5_5	0.210977	1.78902	0.00003	0.00003	1.38073
Ato_P15_3_4_5	0.240327	1.75967	0.00110	0.00110	25.85740
Ato_P15_3_3_6	0.218536	1.78146	0.00271	0.00271	22.32000
Ato_P11_2_2_4	0.296001	1.704	0.00372	0.00372	23.03690
Ato_P19_4_5_7	0.176862	1.82314	0.00384	0.00384	25.05420
Ato_P18_4_3_8	0.19528	1.80472	0.00443	0.00443	18.37720
Ato_P19_4_4_8	0.166838	1.83316	0.00496	0.00496	21.87780
Ato_P11_2_1_5	0.0831764	1.91682	0.00621	0.00253	12.75450
Ato_P15_3_2_7	0.252133	1.74787	0.00628	0.00629	14.88410
Ato_P18_4_4_7	0.172912	1.82709	0.00677	0.00677	23.63880
Ato_P19_4_3_9	0.185515	1.81448	0.00715	0.00715	16.06510
Ato_P18_4_5_6	0.222181	1.77782	0.00745	0.00745	28.49740
Ato_P20_4_6_7	0.179255	1.82074	0.00972	0.00974	19.97590
Ato_P14_3_2_6	0.268221	1.73178	0.01238	0.01240	17.84050
Ato_P20_4_5_8	0.146175	1.85382	0.01304	0.01309	23.84520
Ato_P20_4_4_9	0.159438	1.84056	0.01423	0.01426	20.01330
Ato_P17_4_2_8	0.233737	1.76626	0.01451	0.01452	13.38220
Ato_P16_3_4_6	0.186198	1.8138	0.01540	0.01541	24.17510
Ato_P13_2_4_4	0.238707	1.76129	0.01550	0.01564	0.00770
Ato_P20_4_3_10	0.17695	1.82305	0.01619	0.01619	13.65720
Ato_P14_3_3_5	0.22586	1.77414	0.01620	0.01622	24.63330
Ato_P18_3_6_6	0.173943	1.82606	0.01637	0.01646	0.00522
Ato_P16_3_3_7	0.207328	1.79267	0.01708	0.01713	20.04350
Ato_P12_2_3_4	0.252768	1.74723	0.01801	0.01802	23.48050
Ato_P17_4_3_7	0.205756	1.79424	0.01915	0.01916	20.50620
Ato_P20_5_3_9	0.188808	1.81119	0.01932	0.01935	16.95070
Ato_P17_3_5_6	0.199114	1.80089	0.02009	0.02010	15.46340
Ato_P18_5_5_5	0.219965	1.78004	0.02103	0.02103	45.00000
Ato_P12_2_2_5	0.278516	1.72148	0.02121	0.02120	20.09610
Ato_P17_4_4_6	0.205019	1.79498	0.02221	0.02223	26.01720
Ato_P20_5_4_8	0.170647	1.82935	0.02228	0.02226	22.13690
Ato_P15_4_4_4	0.267214	1.73279	0.02413	0.02414	45.00000
Ato_P20_5_5_7	0.189602	1.8104	0.02492	0.02492	27.42320
Ato_P7_1_1_2	0.503867	1.49613	0.02633	0.02634	24.58400
Ato_P17_3_4_7	0.174187	1.82581	0.02642	0.02643	23.03140
Ato_P17_3_3_8	0.196544	1.80346	0.02794	0.02795	17.51430
Ato_P19_3_6_7	0.195702	1.8043	0.02841	0.02842	5.16546
Ato_P12_3_3_3	0.340434	1.65957	0.02842	0.02845	45.00000

name	c_l	c_a	Δ_l	Δ_a	θ
Ato_P20_3_7_7	0.133194	1.86681	0.02888	0.02889	0.00749
Ato_P8_1_1_3	0.475438	1.52456	0.02912	0.02911	20.16150
Ato_P10_2_1_4	0.397519	1.60248	0.03095	0.03096	16.75110
Ato_P16_4_2_7	0.246777	1.75322	0.03276	0.03279	16.00740
Ato_P18_3_5_7	0.163827	1.83617	0.03310	0.03321	21.91680
Ato_P19_5_3_8	0.198515	1.80149	0.03382	0.03385	18.87510
Ato_P18_3_4_8	0.166744	1.83326	0.03480	0.03481	21.36100
Ato_P9_2_2_2	0.467307	1.53269	0.03490	0.03493	45.00000
Ato_P18_3_3_9	0.187424	1.81258	0.03598	0.03598	14.85820
Ato_P13_2_3_5	0.219322	1.78068	0.03630	0.03631	23.35860
Ato_P19_5_4_7	0.177479	1.82252	0.03688	0.03689	24.04950
Ato_P19_5_2_9	0.870964	1.12904	0.00638	0.03694	12.76620
Ato_P13_3_2_5	0.285926	1.71407	0.03729	0.03726	20.52400
Ato_P16_4_3_6	0.21548	1.78452	0.03773	0.03773	22.57260
Ato_P13_2_2_6	0.260139	1.73986	0.03870	0.03870	16.77780
Ato_P14_2_4_5	0.246509	1.75349	0.03899	0.03903	11.25030
Ato_P15_2_5_5	0.165659	1.83434	0.03879	0.03930	0.01185
Ato_P10_2_2_3	0.318689	1.68131	0.03930	0.03932	27.37880
Ato_P19_5_5_6	0.259631	1.74037	0.03946	0.03952	36.53730
Ato_P19_3_5_8	0.143665	1.85634	0.04010	0.04011	22.76490
Ato_P19_3_4_9	0.159425	1.84057	0.04101	0.04106	19.28530
Ato_P20_3_6_8	0.147082	1.85292	0.04107	0.04109	17.06790
Ato_P16_4_4_5	0.283375	1.71662	0.04275	0.04283	33.56250
Ato_P13_3_3_4	0.309707	1.69029	0.04413	0.04412	30.46370
Ato_P20_3_5_9	0.137999	1.862	0.04519	0.04518	21.95530
Ato_P20_3_4_10	0.152802	1.8472	0.04566	0.04565	17.01330
Ato_P18_5_2_8	0.235656	1.76434	0.04590	0.04588	14.52890
Ato_P6_1_1_1	0.740071	1.25993	0.04665	0.04666	45.00000
Ato_P19_6_5_5	0.226633	1.77337	0.04700	0.04702	45.00000
Ato_P16_2_5_6	0.203769	1.79623	0.04897	0.04903	4.07489
Ato_P14_2_3_6	0.209321	1.79068	0.04916	0.04921	21.72040
Ato_P14_2_2_7	0.244274	1.75573	0.05073	0.05080	13.33380
Ato_P18_5_3_7	0.20935	1.79065	0.05165	0.05170	20.64350
Ato_P20_6_2_9	0.220914	1.77909	0.05494	0.05503	13.25490
Ato_P16_3_2_8	0.0389045	1.9611	0.05528	0.01565	12.70060
Ato_P15_2_4_6	0.174564	1.82544	0.05543	0.05543	21.37980
Ato_P15_4_2_6	0.261749	1.73825	0.05605	0.05601	18.36450
Ato_P17_2_6_6	0.120142	1.87986	0.05643	0.05644	0.01709

name	c_l	c_a	Δ_l	Δ_a	θ
Ato_P9_1_2_3	0.329877	1.67012	0.05648	0.05648	21.67050
Ato_P15_2_3_7	0.19794	1.80206	0.05799	0.05801	19.21120
Ato_P18_5_4_6	0.223305	1.7767	0.05788	0.05801	27.58520
Ato_P16_5_4_4	0.276777	1.72322	0.05924	0.05934	45.00000
Ato_P12_3_1_5	0.365188	1.63481	0.06017	0.06019	14.24830
Ato_P20_6_3_8	0.197798	1.8022	0.06041	0.06042	19.04700
Ato_P10_1_3_3	1	1	0.01235	0.06250	0.01509
Ato_P17_2_5_7	0.171822	1.82818	0.06276	0.06280	16.38970
Ato_P15_4_3_5	0.241375	1.75863	0.06263	0.06287	25.56150
Ato_P16_2_4_7	0.165682	1.83432	0.06321	0.06328	22.01820
Ato_P18_2_6_7	0.129582	1.87042	0.06348	0.06355	1.94489
Ato_P20_6_4_7	0.192807	1.80719	0.06561	0.06567	24.38320
Ato_P17_5_2_7	0.24941	1.75059	0.06752	0.06753	16.64980
Ato_P20_6_5_6	0.314621	1.68538	0.06823	0.06821	45.00000
Ato_P9_1_1_4	0.389903	1.6101	0.06853	0.06864	15.34870
Ato_P19_2_7_7	0.091211	1.90879	0.06943	0.06948	0.01453
Ato_P12_3_2_4	0.300247	1.69975	0.06982	0.06993	23.35730
Ato_P20_7_5_5	0.233942	1.76606	0.07079	0.07087	45.00000
Ato_P19_2_6_8	0.156391	1.84361	0.07149	0.07157	9.63766
Ato_P17_2_4_8	0.146079	1.85392	0.07258	0.07269	20.57430
Ato_P17_5_3_6	0.218399	1.7816	0.07347	0.07346	22.63200
Ato_P18_2_5_8	0.127153	1.87285	0.07440	0.07444	20.94550
Ato_P19_6_2_8	0.240037	1.75996	0.07452	0.07452	15.25320
Ato_P20_2_7_8	0.0892474	1.91075	0.07457	0.07495	1.09263
Ato_P9_2_1_3	0.426829	1.57317	0.07889	0.07891	20.40350
Ato_P13_4_3_3	0.353887	1.64611	0.07883	0.07891	45.00000
Ato_P19_6_3_7	0.207245	1.79275	0.08029	0.08037	20.56150
Ato_P18_2_4_9	0.129307	1.87069	0.08115	0.08122	18.50410
Ato_P20_2_6_9	0.114259	1.88574	0.08238	0.08240	18.20630
Ato_P19_2_5_9	0.111588	1.88841	0.08316	0.08328	20.95670
Ato_P11_1_3_4	0.263011	1.73699	0.08500	0.08501	7.42857
Ato_P14_4_2_5	0.277284	1.72272	0.08516	0.08525	20.52060
Ato_P14_4_1_6	0.436516	1.56348	0.06295	0.08611	12.66550
Ato_P10_1_2_4	0.292295	1.70771	0.08607	0.08616	22.13050
Ato_P17_5_4_5	0.390399	1.6096	0.08664	0.08668	44.99990
Ato_P20_2_5_10	0.09987	1.90013	0.09039	0.09055	19.68580
Ato_P17_6_4_4	0.285753	1.71425	0.09074	0.09074	45.00000
Ato_P19_6_4_6	0.240523	1.75948	0.09187	0.09187	29.02300

name	c_l	c_a	Δ_l	Δ_a	θ
Ato_P16_5_2_6	0.265971	1.73403	0.09415	0.09430	18.46550
Ato_P18_6_2_7	0.259592	1.74041	0.09929	0.09930	16.89460

2.24 Atd

2.24.1 Near-Miss Cages

name	c_l	c_a	Δ_l	Δ_a	θ
Atd_P12_1_4_4	0.00107152	1.99893	0.00007	0.00003	1.14711
Atd_P17_2_6_6	0.40738	1.59262	0.00006	0.00020	20.90520
Atd_P18_2_6_7	0.121335	1.87866	0.00199	0.00200	10.97890
Atd_P18_2_4_9	0.1003	1.8997	0.00249	0.00249	7.94446
Atd_P12_1_3_5	0.122989	1.87701	0.00345	0.00346	10.06450
Atd_P12_1_2_6	0.124137	1.87586	0.00433	0.00433	6.46732
Atd_P17_2_4_8	0.114341	1.88566	0.00516	0.00518	8.79727
Atd_P17_2_5_7	0.114312	1.88569	0.00536	0.00539	10.58280
Atd_P19_2_7_7	0.0841153	1.91588	0.00655	0.00658	0.02454
Atd_P19_2_6_8	0.0891251	1.91087	0.00854	0.00866	10.76210
Atd_P19_2_5_9	0.0891251	1.91087	0.00879	0.00890	9.44160
Atd_P16_2_3_8	0.133419	1.86658	0.01345	0.01352	6.92457
Atd_P20_3_7_7	0.126747	1.87325	0.01357	0.01357	20.90520
Atd_P16_2_5_6	0.150251	1.84975	0.01382	0.01383	11.45120
Atd_P16_2_4_7	0.131542	1.86846	0.01385	0.01392	9.52238
Atd_P20_2_7_8	0.0991823	1.90082	0.01398	0.01405	10.01850
Atd_P20_2_6_9	0.0776082	1.92239	0.01458	0.01461	10.41400
Atd_P11_1_2_5	0.149603	1.8504	0.01460	0.01468	7.92515
Atd_P20_2_5_10	0.0781756	1.92182	0.01489	0.01489	8.70615
Atd_P11_1_3_4	0.146469	1.85353	0.01512	0.01516	10.90050
Atd_P20_3_4_10	0.134896	1.8651	0.01673	0.01726	7.19113
Atd_P20_3_5_9	0.128679	1.87132	0.01746	0.01747	9.16404
Atd_P20_3_6_8	0.128504	1.8715	0.01746	0.01749	10.62710
Atd_P13_1_4_5	0.103118	1.89688	0.01820	0.01820	10.69870
Atd_P15_2_5_5	0.155113	1.84489	0.01855	0.01855	20.90520
Atd_P13_1_3_6	0.104186	1.89581	0.01889	0.01890	9.10407
Atd_P19_3_4_9	0.149446	1.85055	0.02339	0.02365	7.90639
Atd_P15_2_3_7	0.156009	1.84399	0.02343	0.02371	7.91565
Atd_P19_3_5_8	0.148801	1.8512	0.02352	0.02379	9.62771
Atd_P15_2_4_6	0.155036	1.84496	0.02370	0.02395	10.14110
Atd_P19_3_6_7	0.16929	1.83071	0.02469	0.02469	12.50720
Atd_P18_3_6_6	0.168464	1.83154	0.02676	0.02679	20.90520
Atd_P14_1_5_5	1	1	0.00213	0.02778	0.01952
Atd_P10_1_3_3	1	1	0.00567	0.02974	20.90520
Atd_P18_3_3_9	0.169563	1.83044	0.03054	0.03059	6.20911
Atd_P18_3_4_8	0.171477	1.82852	0.03026	0.03087	8.48629
Atd_P18_3_5_7	0.167523	1.83248	0.03070	0.03089	10.15980
Atd_P14_1_4_6	0.0884582	1.91154	0.03115	0.03116	10.50800

name	c_l	c_a	Δ_l	Δ_a	θ
Atd_P14_1_3_7	0.0896625	1.91034	0.03181	0.03187	7.94976
Atd_P14_2_2_7	0.182921	1.81708	0.03498	0.03500	5.50421
Atd_P14_2_4_5	0.189226	1.81077	0.03531	0.03533	11.37890
Atd_P14_2_3_6	0.180043	1.81996	0.03551	0.03558	8.72909
Atd_P10_1_2_4	0.177046	1.82295	0.03820	0.03825	9.16123
Atd_P17_3_3_8	0.192681	1.80732	0.03922	0.03922	7.00880
Atd_P17_3_4_7	0.187029	1.81297	0.04002	0.04001	8.93139
Atd_P15_1_5_6	0.0828259	1.91717	0.04086	0.04091	9.80568
Atd_P15_1_4_7	0.0764446	1.92356	0.04198	0.04212	9.83023
Atd_P20_4_4_9	0.166119	1.83388	0.04334	0.04335	7.61112
Atd_P13_2_4_4	0.227009	1.77299	0.04383	0.04385	20.90520
Atd_P17_3_5_6	0.19279	1.80721	0.04388	0.04400	12.33940
Atd_P20_4_5_8	0.160681	1.83932	0.04383	0.04405	8.97320
Atd_P16_3_5_5	0.217332	1.78267	0.04655	0.04661	20.90520
Atd_P16_1_6_6	0.933254	1.06675	0.00292	0.04762	0.00317
Atd_P19_4_6_6	0.187185	1.81281	0.04885	0.04888	20.90520
Atd_P13_2_2_6	0.22614	1.77386	0.04907	0.04924	6.69873
Atd_P13_2_3_5	0.212888	1.78711	0.04954	0.04958	9.36789
Atd_P20_4_6_7	0.177656	1.82234	0.05009	0.05005	13.84340
Atd_P16_1_5_7	0.0663939	1.93361	0.05072	0.05081	10.59030
Atd_P16_3_3_7	0.21079	1.78921	0.05195	0.05197	7.60693
Atd_P16_3_4_6	0.199552	1.80045	0.05282	0.05299	9.41253
Atd_P19_4_3_9	0.18564	1.81436	0.05323	0.05344	6.28479
Atd_P19_4_4_8	0.179637	1.82036	0.05393	0.05408	7.89480
Atd_P19_4_5_7	0.172251	1.82775	0.05537	0.05539	9.55699
Atd_P17_1_6_7	0.0671982	1.9328	0.05717	0.05718	8.13690
Atd_P17_1_5_8	0.0581827	1.94182	0.05897	0.05908	10.24290
Atd_P20_4_3_10	0.141859	1.85814	0.06077	0.06075	6.23573
Atd_P18_1_7_7	1	1	0.00252	0.06250	0.01364
Atd_P18_1_6_8	0.0511183	1.94888	0.06535	0.06540	10.37340
Atd_P18_1_5_9	0.0518252	1.94817	0.06623	0.06629	9.56002
Atd_P12_2_2_5	0.270075	1.72992	0.06614	0.06633	7.59475
Atd_P18_4_3_8	0.199591	1.80041	0.06626	0.06634	6.72479
Atd_P18_4_4_7	0.192137	1.80786	0.06703	0.06709	8.07371
Atd_P9_1_1_4	0.229061	1.77094	0.06719	0.06731	6.11984
Atd_P15_3_3_6	0.227502	1.7725	0.06773	0.06782	7.98535
Atd_P9_1_2_3	0.222342	1.77766	0.06812	0.06814	10.30100
Atd_P12_2_3_4	0.267679	1.73232	0.06814	0.06816	10.63330

name	c_l	c_a	Δ_l	Δ_a	θ
Atd_P19_1_7_8	0.0548226	1.94518	0.06920	0.06937	5.55987
Atd_P20_5_6_6	0.19299	1.80701	0.07149	0.07158	20.90510
Atd_P19_1_6_9	0.0457068	1.95429	0.07187	0.07197	10.40950
Atd_P15_3_4_5	0.223534	1.77647	0.07270	0.07270	11.61850
Atd_P20_1_8_8	1	1	0.00230	0.07407	0.01786
Atd_P18_4_5_6	0.203798	1.7962	0.07456	0.07458	13.12130
Atd_P17_4_5_5	0.224405	1.77559	0.07656	0.07656	20.90520
Atd_P20_1_7_9	0.0418715	1.95813	0.07650	0.07659	9.86978
Atd_P20_5_3_9	0.191792	1.80821	0.07631	0.07666	6.02634
Atd_P20_1_6_10	0.0411615	1.95884	0.07764	0.07770	9.96011
Atd_P20_5_5_7	0.180059	1.81994	0.07887	0.07893	8.80273
Atd_P16_1_4_8	0.217568	1.78243	0.08039	0.08056	6.28800
Atd_P15_3_2_7	0.176387	1.82361	0.08062	0.08069	6.27986
Atd_P14_3_4_4	0.269134	1.73087	0.08123	0.08131	20.90520
Atd_P10_1_1_5	0.327766	1.67223	0.08162	0.08159	5.61964
Atd_P17_4_3_7	0.220013	1.77999	0.08244	0.08252	6.90536
Atd_P11_2_3_3	0.33567	1.66433	0.08435	0.08434	20.90520
Atd_P14_3_2_6	0.266669	1.73333	0.08734	0.08745	6.46895
Atd_P14_3_3_5	0.251189	1.74881	0.08847	0.08847	8.27579
Atd_P11_2_1_5	0.338945	1.66105	0.09024	0.09026	4.90386
Atd_P11_2_2_4	0.318041	1.68196	0.09187	0.09187	8.12336
Atd_P19_5_3_8	0.208403	1.7916	0.09212	0.09210	6.07462
Atd_P19_5_4_7	0.201086	1.79891	0.09255	0.09289	6.91835
Atd_P16_3_2_8	0.221324	1.77868	0.09821	0.09821	6.15065
Atd_P8_1_2_2	0.812831	1.18717	0.04650	0.09839	20.90510
Atd_P18_2_5_8	0.273629	1.72637	0.09898	0.09900	2.30235

2.25 Ati

2.25.1 Regular Cages

name	θ	name	θ	name	θ
Ati_P20_5_6_6	3.0675				

2.25.2 Near-Miss Cages

name	c_l	c_a	Δ_l	Δ_a	θ
Ati_P16_4_2_7	0.239208	1.76079	0.00042	0.00042	12.34810
Ati_P13_3_3_4	0.255459	1.74454	0.00184	0.00184	19.55210
Ati_P16_4_3_6	0.225374	1.77463	0.00189	0.00189	17.27020
Ati_P16_4_4_5	0.224713	1.77529	0.00270	0.00270	19.93720
Ati_P13_3_2_5	0.292838	1.70716	0.00289	0.00290	15.87800
Ati_P19_5_3_8	0.198598	1.8014	0.00336	0.00337	14.58580
Ati_P17_4_5_5	0.213781	1.78622	0.00413	0.00414	0.01635
Ati_P19_5_4_7	0.188117	1.81188	0.00433	0.00433	18.05100
Ati_P19_5_5_6	0.200075	1.79993	0.00506	0.00506	20.40460
Ati_P20_5_5_7	0.163526	1.83647	0.00686	0.00686	19.20010
Ati_P18_5_5_5	0.217837	1.78216	0.00693	0.00692	31.71750
Ati_P20_5_4_8	0.176473	1.82353	0.00715	0.00716	16.97200
Ati_P20_5_3_9	0.185052	1.81495	0.00790	0.00791	12.91690
Ati_P15_4_4_4	1.06675	0.933254	0.00150	0.01036	31.71750
Ati_P10_2_2_3	0.340323	1.65968	0.01141	0.01141	19.20670
Ati_P14_3_4_4	0.261342	1.73866	0.01158	0.01160	0.01361
Ati_P17_4_4_6	0.193684	1.80632	0.01239	0.01241	18.97120
Ati_P12_3_3_3	1.06675	0.933254	0.00249	0.01254	31.71750
Ati_P17_4_3_7	0.208798	1.7912	0.01279	0.01280	15.75730
Ati_P10_2_1_4	0.386364	1.61364	0.01315	0.01315	12.99060
Ati_P9_2_2_2	1.06675	0.933254	0.00475	0.01556	31.71750
Ati_P18_5_2_8	0.224404	1.7756	0.01582	0.01584	11.33900
Ati_P18_5_3_7	0.213382	1.78662	0.01774	0.01774	15.99810
Ati_P6_1_1_1	1.06675	0.933254	0.01140	0.01892	31.71750
Ati_P18_5_4_6	0.198327	1.80167	0.01897	0.01903	19.08560
Ati_P15_4_2_6	0.260544	1.73946	0.01941	0.01940	14.35580
Ati_P12_3_1_5	0.351545	1.64846	0.02111	0.02116	11.25890
Ati_P15_4_3_5	0.241847	1.75815	0.02132	0.02134	18.50250
Ati_P14_3_3_5	0.246391	1.75361	0.02206	0.02207	18.58110
Ati_P19_4_6_6	0.178282	1.82172	0.02243	0.02244	0.00527
Ati_P14_3_2_6	0.265918	1.73408	0.02267	0.02266	13.61790
Ati_P18_4_4_7	0.183282	1.81672	0.02363	0.02364	18.06590
Ati_P18_4_5_6	0.184278	1.81572	0.02384	0.02387	16.16780
Ati_P18_4_3_8	0.193607	1.80639	0.02392	0.02392	13.92580
Ati_P12_3_2_4	0.322278	1.67772	0.02462	0.02461	17.62690
Ati_P11_2_3_3	0.328431	1.67157	0.02624	0.02624	0.00529
Ati_P9_2_1_3	0.441574	1.55843	0.02827	0.02827	15.92410
Ati_P20_6_3_8	0.197655	1.80235	0.02853	0.02852	14.91880

name	c_l	c_a	Δ_l	Δ_a	θ
Ati_P20_6_4_7	0.187671	1.81233	0.02997	0.03002	17.88670
Ati_P19_4_4_8	0.172189	1.82781	0.03210	0.03210	16.73180
Ati_P19_4_3_9	0.180648	1.81935	0.03220	0.03225	11.91050
Ati_P19_4_5_7	0.159459	1.84054	0.03258	0.03259	18.74980
Ati_P19_6_5_5	0.224521	1.77548	0.03276	0.03287	31.71750
Ati_P20_6_5_6	0.215236	1.78476	0.03359	0.03359	22.94250
Ati_P17_5_2_7	0.243616	1.75638	0.03366	0.03371	13.15250
Ati_P20_4_6_7	0.149793	1.85021	0.03440	0.03450	6.66971
Ati_P16_3_5_5	0.21399	1.78601	0.03448	0.03459	0.00729
Ati_P20_6_2_9	1.12904	0.870964	0.00340	0.03463	10.97730
Ati_P17_5_3_6	0.229748	1.77025	0.03600	0.03601	17.12300
Ati_P15_3_3_6	0.228187	1.77181	0.03639	0.03640	17.13630
Ati_P15_3_4_5	0.202636	1.79736	0.03642	0.03643	16.56920
Ati_P15_3_2_7	0.243688	1.75631	0.03672	0.03676	11.06330
Ati_P7_1_1_2	0.561058	1.43894	0.03739	0.03739	18.63950
Ati_P17_4_2_8	0.0295121	1.97049	0.03836	0.00911	10.61810
Ati_P20_4_4_9	0.16145	1.83855	0.03840	0.03841	15.08400
Ati_P20_4_5_8	0.15276	1.84724	0.03887	0.03888	18.44860
Ati_P11_2_2_4	0.31144	1.68856	0.03981	0.03981	17.73460
Ati_P17_5_4_5	0.24419	1.75581	0.04012	0.04012	22.01830
Ati_P19_6_2_8	0.229549	1.77045	0.04312	0.04312	12.17470
Ati_P16_5_4_4	0.274676	1.72532	0.04318	0.04322	31.71750
Ati_P20_4_3_10	0.144544	1.85546	0.04428	0.03736	9.96330
Ati_P14_4_2_5	0.284549	1.71545	0.04426	0.04429	15.95560
Ati_P19_6_3_7	0.211768	1.78823	0.04532	0.04532	15.94970
Ati_P16_3_3_7	0.210551	1.78945	0.04654	0.04653	15.15710
Ati_P18_3_6_6	0.179297	1.8207	0.04656	0.04667	0.01144
Ati_P16_3_4_6	0.195452	1.80455	0.04732	0.04740	18.70970
Ati_P19_6_4_6	0.204868	1.79513	0.04780	0.04784	19.16070
Ati_P14_4_3_4	0.279771	1.72023	0.04899	0.04900	20.98020
Ati_P17_3_5_6	0.179553	1.82045	0.04971	0.04969	7.14010
Ati_P17_3_3_8	0.195333	1.80467	0.05365	0.05367	12.90870
Ati_P17_3_4_7	0.183797	1.8162	0.05432	0.05435	17.84870
Ati_P19_3_6_7	0.158633	1.84137	0.05568	0.05575	3.54878
Ati_P16_5_2_6	0.269096	1.7309	0.05654	0.05657	14.62190
Ati_P20_7_5_5	0.231572	1.76843	0.05655	0.05660	31.71750
Ati_P13_2_4_4	0.243437	1.75656	0.05667	0.05680	0.01390
Ati_P11_3_1_4	0.393918	1.60608	0.05788	0.05791	13.80920

name	c_l	c_a	Δ_l	Δ_a	θ
Ati_P20_3_7_7	0.13757	1.86243	0.05826	0.05832	0.01667
Ati_P12_2_2_5	0.28115	1.71885	0.05838	0.05841	15.29290
Ati_P18_3_3_9	0.182622	1.81738	0.05843	0.05851	10.59260
Ati_P18_3_4_8	0.172737	1.82726	0.05915	0.05918	16.22080
Ati_P16_5_3_5	0.245827	1.75417	0.05919	0.05925	18.32360
Ati_P12_2_3_4	0.248701	1.7513	0.05925	0.05926	17.20880
Ati_P13_4_3_3	0.351855	1.64814	0.06014	0.06016	31.71750
Ati_P18_3_5_7	0.160398	1.8396	0.06071	0.06073	18.06860
Ati_P19_3_4_9	0.161917	1.83808	0.06242	0.06253	14.26850
Ati_P11_3_2_3	0.356028	1.64397	0.06362	0.06366	19.77140
Ati_P19_3_5_8	0.152614	1.84739	0.06375	0.06376	18.12550
Ati_P18_6_2_7	0.251875	1.74813	0.06375	0.06383	13.54840
Ati_P20_3_5_9	0.144514	1.85549	0.06564	0.06561	16.92250
Ati_P18_6_3_6	0.228172	1.77183	0.06601	0.06602	16.81240
Ati_P20_3_4_10	0.147805	1.8522	0.06640	0.06666	12.24090
Ati_P8_1_2_2	0.57544	1.42456	0.05229	0.06667	0.01486
Ati_P20_3_6_8	0.135911	1.86409	0.06699	0.06704	16.41450
Ati_P20_7_2_8	0.237197	1.7628	0.06794	0.06806	12.65420
Ati_P13_2_2_6	0.254858	1.74514	0.07017	0.07033	12.35740
Ati_P20_7_3_7	0.219213	1.78079	0.07058	0.07066	15.69260
Ati_P13_2_3_5	0.234143	1.76586	0.07169	0.07184	18.38730
Ati_P13_4_1_5	0.362918	1.63708	0.07356	0.07355	12.26080
Ati_P14_2_4_5	0.211371	1.78863	0.07405	0.07397	7.56426
Ati_P17_6_4_4	0.283395	1.71661	0.07454	0.07455	31.71750
Ati_P20_7_4_6	0.218612	1.78139	0.07474	0.07481	19.26330
Ati_P18_6_4_5	0.261985	1.73801	0.07489	0.07496	23.65380
Ati_P13_4_2_4	0.312672	1.68733	0.07701	0.07701	17.24850
Ati_P14_2_3_6	0.215837	1.78416	0.07902	0.07908	16.64410
Ati_P15_2_5_5	0.172571	1.82743	0.07842	0.07911	0.00999
Ati_P15_5_1_6	0.322569	1.67743	0.08204	0.08204	10.99870
Ati_P8_1_1_3	0.481343	1.51866	0.08270	0.08277	15.44230
Ati_P14_2_2_7	0.212696	1.7873	0.08414	0.08112	9.49386
Ati_P15_5_2_5	0.297746	1.70225	0.08567	0.08567	15.68310
Ati_P11_2_1_5	0.0724436	1.92756	0.08628	0.03390	10.49630
Ati_P15_2_4_6	0.182239	1.81776	0.08667	0.08674	18.09510
Ati_P16_2_5_6	0.156801	1.8432	0.08802	0.08813	3.15507
Ati_P17_6_2_6	0.279429	1.72057	0.08960	0.08959	14.53150
Ati_P15_2_3_7	0.184226	1.81577	0.08950	0.08965	14.29710

name	c_l	c_a	Δ_l	Δ_a	θ
Ati_P19_7_2_7	0.260052	1.73995	0.09063	0.09061	13.61630
Ati_P10_3_2_2	0.487197	1.5128	0.09130	0.09136	31.71750
Ati_P8_2_1_2	0.534086	1.46591	0.09251	0.09255	18.20370
Ati_P17_6_3_5	0.255662	1.74434	0.09300	0.09314	18.14940
Ati_P19_7_3_6	0.236224	1.76378	0.09319	0.09324	16.43370
Ati_P17_2_6_6	0.125638	1.87436	0.09491	0.09525	0.04171
Ati_P15_5_3_4	0.306825	1.69317	0.09528	0.09528	22.17700
Ati_P16_2_4_7	0.155045	1.84496	0.09668	0.09671	17.38640
Ati_P16_2_3_8	0.157808	1.84219	0.09890	0.09900	11.83920

2.26 Aco

2.26.1 Regular Cages

name	name	name
Aco_P10_1_1_1_3	Aco_P15_2_2_2_5	Aco_P20_3_3_3_7
Aco_P12_1_2_3_2		

2.26.2 Near-Miss Cages

name	c_l	c_a	Δ_l	Δ_a
Aco_P17_2_4_3_4	1.98953	0.0104713	0.00000	0.00083
Aco_P18_2_4_4_4	1.97911	0.020893	0.00000	0.00140
Aco_P20_3_4_3_6	0.0414428	1.95856	0.00174	0.00174
Aco_P20_3_5_3_5	1.99826	0.0017378	0.00000	0.00227
Aco_P15_2_3_2_4	0.0183446	1.98166	0.00282	0.00282
Aco_P10_1_2_1_2	0.0223872	1.97761	0.00003	0.00511
Aco_P16_2_4_2_4	1.82217	0.177828	0.00000	0.00641
Aco_P19_2_4_5_4	1.98798	0.0120226	0.00000	0.00667
Aco_P19_3_3_3_6	0.0873413	1.91266	0.00715	0.00719
Aco_P16_2_3_2_5	0.0586491	1.94135	0.00754	0.00754
Aco_P19_3_4_3_5	0.0142192	1.98578	0.00802	0.00802
Aco_P14_2_2_2_4	0.101549	1.89845	0.01284	0.01285
Aco_P17_2_3_5_3	0.189554	1.81045	0.01424	0.01424
Aco_P14_2_3_2_3	1.9805	0.0194984	0.00000	0.01429
Aco_P18_3_3_3_5	0.0651052	1.93489	0.01438	0.01440
Aco_P18_3_4_3_4	0.501187	1.49881	0.00004	0.01480
Aco_P17_2_4_2_5	0.00374199	1.99626	0.01477	0.01490
Aco_P11_1_2_2_2	1.99397	0.0060256	0.00001	0.01490
Aco_P20_2_5_4_5	1.98521	0.0147911	0.00001	0.01533
Aco_P19_2_5_3_5	1.99602	0.00398107	0.00000	0.01570
Aco_P16_2_3_4_3	1.94871	0.0512861	0.00004	0.01577
Aco_P20_2_4_6_4	0.314987	1.68501	0.01598	0.01598
Aco_P17_2_3_2_6	0.0889899	1.91101	0.01702	0.01708
Aco_P11_1_2_1_3	0.0155259	1.98447	0.01798	0.01807
Aco_P20_3_4_5_4	1.99771	0.00229087	0.00000	0.01832
Aco_P18_2_4_3_5	0.261687	1.73831	0.02094	0.02096
Aco_P19_3_4_4_4	1.7116	0.288403	0.00026	0.02131
Aco_P18_2_5_2_5	1.74881	0.251189	0.00002	0.02194
Aco_P17_3_3_3_4	0.0289407	1.97106	0.02205	0.02212
Aco_P15_2_3_3_3	1.99698	0.00301995	0.00000	0.02213
Aco_P18_2_4_2_6	0.0333494	1.96665	0.02274	0.02276
Aco_P13_1_3_2_3	1.99023	0.00977237	0.00001	0.02353
Aco_P20_2_5_3_6	0.436516	1.56348	0.00740	0.02393
Aco_P20_4_4_4_4	1.49881	0.501187	0.00003	0.02406
Aco_P19_3_3_6_3	0.0017378	1.99826	0.01091	0.02452
Aco_P20_3_4_4_5	0.171298	1.8287	0.02568	0.02569
Aco_P13_2_2_2_3	0.050003	1.95	0.02681	0.02699
Aco_P19_2_5_2_6	0.00199526	1.998	0.02376	0.02847

name	c_l	c_a	Δ_l	Δ_a
Aco_P14_1_3_3_3	1.99885	0.00114815	0.00000	0.02870
Aco_P17_3_2_3_5	0.102081	1.89792	0.02861	0.02872
Aco_P18_2_3_2_7	0.0954993	1.9045	0.02962	0.02590
Aco_P20_4_3_4_5	0.0513403	1.94866	0.02997	0.03003
Aco_P19_2_4_2_7	0.0568068	1.94319	0.03013	0.03013
Aco_P16_3_3_3_3	0.331131	1.66887	0.00014	0.03092
Aco_P9_1_1_1_2	0.0956079	1.90439	0.03216	0.03217
Aco_P18_3_3_5_3	0.164436	1.83556	0.03218	0.03222
Aco_P19_2_4_3_6	0.191055	1.80895	0.03287	0.03296
Aco_P20_2_6_2_6	1.82217	0.177828	0.00001	0.03401
Aco_P19_2_4_4_5	0.347009	1.65299	0.03414	0.03414
Aco_P20_2_5_2_7	0.0198962	1.9801	0.03401	0.03460
Aco_P12_1_3_1_3	1.80945	0.190546	0.00001	0.03510
Aco_P18_2_3_3_6	0.197942	1.80206	0.03576	0.03578
Aco_P20_2_4_3_7	0.151146	1.84885	0.03676	0.03677
Aco_P14_2_2_4_2	0.00151356	1.99849	0.01779	0.03704
Aco_P20_2_4_2_8	0.0766299	1.92337	0.03711	0.03711
Aco_P19_4_3_4_4	0.0549541	1.94505	0.02160	0.03795
Aco_P12_1_2_1_4	0.0805185	1.91948	0.03807	0.03808
Aco_P15_1_3_4_3	1	1	0.00504	0.03846
Aco_P16_2_3_3_4	0.262748	1.73725	0.03876	0.03876
Aco_P17_3_3_4_3	0.218776	1.78122	0.03082	0.03894
Aco_P16_3_2_3_4	0.0762715	1.92373	0.04041	0.04044
Aco_P20_2_4_5_5	0.422106	1.57789	0.04173	0.04173
Aco_P20_3_3_4_6	0.142144	1.85786	0.04266	0.04267
Aco_P12_2_2_2_2	0.707946	1.29205	0.00005	0.04328
Aco_P20_4_3_6_3	0.171607	1.82839	0.04335	0.04342
Aco_P17_2_3_3_5	0.209554	1.79045	0.04348	0.04351
Aco_P14_1_3_2_4	0.274363	1.72564	0.04396	0.04396
Aco_P18_3_3_4_4	0.229738	1.77026	0.04534	0.04537
Aco_P18_4_3_4_3	1.8651	0.134896	0.00002	0.04606
Aco_P18_2_3_6_3	0.292599	1.7074	0.04697	0.04705
Aco_P20_3_3_7_3	0.190122	1.80988	0.04706	0.04718
Aco_P16_1_3_5_3	0.436516	1.56348	0.04508	0.04762
Aco_P16_3_2_5_2	0.0017378	1.99826	0.02653	0.04765
Aco_P13_1_3_1_4	0.00114815	1.99885	0.04162	0.05013
Aco_P19_4_2_4_5	0.0805815	1.91942	0.05041	0.05045
Aco_P13_2_2_3_2	0.436516	1.56348	0.02607	0.05066

name	c_l	c_a	Δ_l	Δ_a
Aco_P16_1_4_3_4	1.98302	0.0169824	0.00002	0.05076
Aco_P15_1_4_2_4	1.97601	0.0239883	0.00002	0.05123
Aco_P16_2_2_3_5	0.242626	1.75737	0.05207	0.05207
Aco_P19_4_3_5_3	0.176002	1.824	0.05221	0.05225
Aco_P19_3_3_5_4	0.340668	1.65933	0.05222	0.05228
Aco_P15_3_2_3_3	0.0418308	1.95817	0.05184	0.05229
Aco_P17_2_3_4_4	0.412265	1.58774	0.05324	0.05323
Aco_P19_3_3_4_5	0.125921	1.87408	0.05353	0.05364
Aco_P20_4_3_5_4	0.220854	1.77915	0.05577	0.05571
Aco_P17_1_4_4_4	1.99308	0.00691831	0.00001	0.05582
Aco_P13_1_2_1_5	0.130344	1.86966	0.05580	0.05589
Aco_P20_2_4_4_6	0.269733	1.73027	0.05665	0.05677
Aco_P13_1_2_4_2	0.462754	1.53725	0.05692	0.05692
Aco_P15_2_2_5_2	0.22692	1.77308	0.05710	0.05713
Aco_P17_3_2_6_2	0.020893	1.97911	0.05726	0.05715
Aco_P20_5_3_5_3	1.99868	0.00131826	0.00000	0.05785
Aco_P19_2_3_3_7	0.0831764	1.91682	0.05862	0.03136
Aco_P15_1_3_3_4	0.463125	1.53688	0.05878	0.05880
Aco_P18_2_3_5_4	0.53592	1.46408	0.05983	0.05986
Aco_P20_3_3_6_4	0.424496	1.5755	0.06039	0.06038
Aco_P18_4_2_4_4	0.0610063	1.93899	0.06110	0.06113
Aco_P17_1_4_3_5	0.205076	1.79492	0.06156	0.06157
Aco_P13_1_2_2_4	0.286013	1.71399	0.06165	0.06165
Aco_P14_1_4_1_4	1.46297	0.537032	0.00005	0.06190
Aco_P18_1_4_5_4	1	1	0.00515	0.06250
Aco_P18_4_2_6_2	0.00114815	1.99885	0.03548	0.06257
Aco_P15_1_3_2_5	0.191306	1.80869	0.06298	0.06300
Aco_P14_1_3_1_5	0.0368419	1.96316	0.06350	0.06363
Aco_P18_1_4_4_5	0.311316	1.68868	0.06365	0.06367
Aco_P12_2_1_2_3	0.204174	1.79583	0.04239	0.06371
Aco_P18_3_2_4_5	0.143464	1.85654	0.06426	0.06427
Aco_P12_1_2_2_3	0.412218	1.58778	0.06450	0.06452
Aco_P16_1_4_2_5	0.251189	1.74881	0.02738	0.06477
Aco_P15_3_2_4_2	0.231376	1.76862	0.06695	0.06701
Aco_P16_1_3_4_4	0.600114	1.39989	0.06735	0.06739
Aco_P18_1_5_3_5	1.99737	0.00263027	0.00000	0.06831
Aco_P19_1_4_6_4	1	1	0.01085	0.06863
Aco_P19_1_4_5_5	0.40738	1.59262	0.06519	0.06863

name	c_l	c_a	Δ_l	Δ_a
Aco_P19_4_2_7_2	0.00114815	1.99885	0.04032	0.06868
Aco_P15_2_2_3_4	0.176649	1.82335	0.06908	0.06908
Aco_P14_3_2_3_2	1.95831	0.0416869	0.00002	0.06986
Aco_P19_1_5_4_5	1.99859	0.00141254	0.00000	0.07003
Aco_P9_1_1_2_1	1.12904	0.870964	0.01384	0.07115
Aco_P17_1_5_2_5	1.9951	0.00489779	0.00001	0.07138
Aco_P19_2_3_4_6	0.202124	1.79788	0.07147	0.07150
Aco_P8_1_1_1_1	1.99814	0.00186209	0.00000	0.07212
Aco_P20_4_2_5_5	0.0841273	1.91587	0.07237	0.07245
Aco_P15_1_4_1_5	0.00162181	1.99838	0.04649	0.07245
Aco_P14_2_2_3_3	0.312121	1.68788	0.07351	0.07357
Aco_P20_1_4_6_5	0.472107	1.52789	0.07400	0.07407
Aco_P20_1_4_7_4	0.616595	1.3834	0.03297	0.07407
Aco_P20_5_2_7_2	0.00141254	1.99859	0.04210	0.07412
Aco_P20_1_5_5_5	1.97761	0.0223872	0.00003	0.07414
Aco_P19_2_3_7_3	0.310793	1.68921	0.07447	0.07453
Aco_P10_1_1_3_1	0.249478	1.75052	0.07504	0.07508
Aco_P18_1_4_3_6	0.217355	1.78264	0.07540	0.07558
Aco_P17_3_2_4_4	0.0942357	1.90576	0.07600	0.07604
Aco_P15_1_3_1_6	0.0732461	1.92675	0.07600	0.07613
Aco_P20_1_5_4_6	0.218776	1.78122	0.05201	0.07700
Aco_P20_5_2_5_4	0.050529	1.94947	0.07717	0.07720
Aco_P19_1_5_3_6	0.204174	1.79583	0.03873	0.07730
Aco_P17_4_2_4_3	0.218776	1.78122	0.01434	0.07763
Aco_P17_1_4_2_6	0.0927902	1.90721	0.07786	0.07794
Aco_P17_1_3_6_3	0.39087	1.60913	0.07844	0.07850
Aco_P16_1_3_2_6	0.133823	1.86618	0.07880	0.07897
Aco_P16_3_2_4_3	0.319815	1.68018	0.07969	0.07971
Aco_P14_1_2_2_5	0.165959	1.83404	0.08012	0.06545
Aco_P16_1_5_1_5	0.331131	1.66887	0.00025	0.08104
Aco_P18_1_5_2_6	1.97761	0.0223872	0.00003	0.08121
Aco_P16_1_4_1_6	0.0124431	1.98756	0.08175	0.08199
Aco_P17_4_2_5_2	0.224281	1.77572	0.08201	0.08209
Aco_P20_1_6_3_6	1.96369	0.0363078	0.00003	0.08237
Aco_P17_3_2_5_3	0.45183	1.54817	0.08378	0.08373
Aco_P19_1_4_4_6	0.338876	1.66112	0.08371	0.08380
Aco_P15_2_2_4_3	0.550181	1.44982	0.08419	0.08421
Aco_P17_1_3_3_6	0.218066	1.78193	0.08612	0.08620

name	c_l	c_a	Δ_l	Δ_a
Aco_P11_2_1_3_1	0.00151356	1.99849	0.07955	0.08642
Aco_P19_1_6_2_6	1.99573	0.0042658	0.00000	0.08645
Aco_P20_4_2_8_2	0.107679	1.89232	0.08687	0.08690
Aco_P19_4_2_5_4	0.0671753	1.93282	0.08696	0.08699
Aco_P20_1_5_3_7	0.105676	1.89432	0.08697	0.08701
Aco_P11_2_1_2_2	0.0749477	1.92505	0.08661	0.08703
Aco_P16_1_3_1_7	0.101623	1.89838	0.08755	0.08777
Aco_P16_1_3_3_5	0.32397	1.67603	0.08809	0.08806
Aco_P19_5_2_6_2	0.169228	1.83077	0.08855	0.08853
Aco_P16_4_2_4_2	1.18717	0.812831	0.00011	0.08884
Aco_P17_1_5_1_6	0.00141254	1.99859	0.04825	0.08886
Aco_P13_1_2_3_3	0.677452	1.32255	0.08946	0.08945
Aco_P18_1_4_2_7	0.0871852	1.91281	0.08964	0.08975
Aco_P19_1_5_2_7	0.0457108	1.95429	0.08975	0.09018
Aco_P19_2_3_6_4	0.466818	1.53318	0.09036	0.09037
Aco_P18_3_2_7_2	0.217627	1.78237	0.09043	0.09042
Aco_P19_1_4_3_7	0.152589	1.84741	0.09043	0.09050
Aco_P17_1_4_1_7	0.0399513	1.96005	0.09085	0.09118
Aco_P17_1_3_2_7	0.113804	1.8862	0.09145	0.09159
Aco_P19_4_2_6_3	0.384986	1.61501	0.09169	0.09179
Aco_P19_5_2_5_3	0.467735	1.53226	0.01411	0.09186
Aco_P17_1_3_5_4	0.572034	1.42797	0.09205	0.09202
Aco_P18_2_3_4_5	0.301283	1.69872	0.09226	0.09237
Aco_P20_3_3_5_5	0.299787	1.70021	0.09296	0.09294
Aco_P18_4_2_5_3	0.284152	1.71585	0.09355	0.09362
Aco_P20_1_6_2_7	0.109648	1.89035	0.02522	0.09382
Aco_P20_1_4_4_7	0.229159	1.77084	0.09381	0.09384
Aco_P11_1_1_2_3	0.388167	1.61183	0.09382	0.09394
Aco_P20_1_4_5_6	0.44068	1.55932	0.09433	0.09434
Aco_P16_2_2_6_2	0.332255	1.66775	0.09502	0.09502
Aco_P18_1_6_1_6	1	1	0.00008	0.09540
Aco_P20_2_3_8_3	0.316027	1.68397	0.09547	0.09554
Aco_P18_1_5_1_7	0.001	1.999	0.09379	0.09590
Aco_P17_2_2_4_5	0.239083	1.76092	0.09642	0.09652
Aco_P20_1_5_2_8	0.0542332	1.94577	0.09862	0.09890
Aco_P19_1_4_2_8	0.0827857	1.91721	0.09980	0.09989
Aco_P18_1_4_1_8	0.0621015	1.9379	0.09944	0.09992

2.27 Aid

2.27.1 Near-Miss Cages

name	c_l	c_a	Δ_l	Δ_a
Aid_P18_2_5_2_5	1.99475	0.00524807	0.00000	0.00716
Aid_P16_2_4_2_4	1.99149	0.00851138	0.00000	0.00860
Aid_P12_1_3_1_3	1	1	0.00000	0.01145
Aid_P20_3_5_3_5	1.78122	0.218776	0.00000	0.01322
Aid_P20_2_6_2_6	1.99698	0.00301995	0.00000	0.01941
Aid_P18_3_4_3_4	1.99868	0.00131826	0.00000	0.02589
Aid_P14_2_3_2_3	1.99838	0.00162181	0.00000	0.02962
Aid_P10_1_2_1_2	1	1	0.00001	0.02974
Aid_P20_4_4_4_4	1.9045	0.0954993	0.00001	0.03282
Aid_P14_1_4_1_4	1	1	0.00003	0.03891
Aid_P16_3_3_3_3	1.98712	0.0128825	0.00000	0.04218
Aid_P18_4_3_4_3	1.9805	0.0194984	0.00001	0.05714
Aid_P16_1_5_1_5	1	1	0.00007	0.05852
Aid_P12_2_2_2_2	1.99877	0.00123027	0.00000	0.05904
Aid_P20_5_3_5_3	1.97911	0.020893	0.00001	0.06879
Aid_P18_1_6_1_6	1	1	0.00006	0.07323
Aid_P20_1_7_1_7	1	1	0.00010	0.08468
Aid_P14_3_2_3_2	1.56348	0.436516	0.00006	0.08517
Aid_P8_1_1_1_1	1	1	0.00006	0.09839

2.28 Arcd

2.28.1 Regular Cages

name	θ	name	θ	name	θ
Arcd_P20_3_4_5_4	4.20348e-05				

2.28.2 Near-Miss Cages

name	c_l	c_a	Δ_l	Δ_a	θ
Arcd_P16_2_3_4_3	0.159036	1.84096	0.00653	0.00654	11.01790
Arcd_P19_2_4_5_4	1.99786	0.00213796	0.00000	0.00748	29.78800
Arcd_P19_2_3_5_5	0.21394	1.78606	0.01050	0.01051	22.34340
Arcd_P17_2_3_5_3	0.189105	1.81089	0.01421	0.01424	37.37740
Arcd_P18_2_4_4_4	0.131693	1.86831	0.01445	0.01446	11.73720
Arcd_P20_2_4_5_5	0.0164647	1.98354	0.01571	0.01579	22.71650
Arcd_P20_2_4_6_4	0.314934	1.68507	0.01596	0.01598	37.37740
Arcd_P20_2_3_5_6	0.0381695	1.96183	0.01618	0.01618	22.53330
Arcd_P17_2_3_4_4	0.229006	1.77099	0.01759	0.01761	21.51770
Arcd_P18_2_2_5_5	0.272673	1.72733	0.01767	0.01767	22.05770
Arcd_P18_3_3_5_3	0.110859	1.88914	0.02034	0.02037	0.00001
Arcd_P18_2_3_5_4	0.222809	1.77719	0.02105	0.02110	23.44320
Arcd_P20_3_3_5_5	0.261512	1.73849	0.02175	0.02176	23.01550
Arcd_P15_2_2_4_3	0.0416869	1.95831	0.01717	0.02197	22.57710
Arcd_P12_1_1_3_3	0.423201	1.5768	0.02340	0.02339	22.09230
Arcd_P19_3_2_5_5	0.175718	1.82428	0.02356	0.02354	23.30950
Arcd_P19_3_3_6_3	0.00186209	1.99814	0.01073	0.02452	37.37740
Arcd_P13_2_2_3_2	0.151642	1.84836	0.02457	0.02460	0.00000
Arcd_P20_3_3_6_4	0.0653387	1.93466	0.02490	0.02495	23.23470
Arcd_P19_3_3_5_4	0.153026	1.84697	0.02558	0.02575	21.54490
Arcd_P11_1_2_2_2	0.286952	1.71305	0.02574	0.02576	5.23606
Arcd_P20_2_5_4_5	0.113369	1.88663	0.02611	0.02616	12.07500
Arcd_P17_3_3_4_3	0.302339	1.69766	0.02660	0.02661	0.00000
Arcd_P18_2_3_4_5	0.183807	1.81619	0.02687	0.02690	22.71880
Arcd_P15_2_3_3_3	0.288234	1.71177	0.02758	0.02758	0.00001
Arcd_P20_4_3_6_3	0.00107152	1.99893	0.02038	0.02782	0.00001
Arcd_P19_3_4_4_4	0.257519	1.74248	0.02827	0.02830	0.00000
Arcd_P20_3_2_6_5	0.0821349	1.91787	0.02944	0.02945	22.44140
Arcd_P18_3_2_5_4	0.0735109	1.92649	0.02961	0.02973	22.83140
Arcd_P17_2_2_4_5	0.0724436	1.92756	0.03278	0.00985	22.98910
Arcd_P14_1_2_3_4	1.99573	0.0042658	0.00001	0.03368	22.67940
Arcd_P19_2_4_4_5	0.129945	1.87006	0.03370	0.03368	19.59300
Arcd_P19_2_3_4_6	0.151211	1.84879	0.03456	0.03453	23.19090
Arcd_P20_2_3_6_5	0.269464	1.73054	0.03504	0.03505	21.89460
Arcd_P9_1_1_2_1	0.00229087	1.99771	0.03025	0.03574	0.00000
Arcd_P10_1_1_2_2	0.535147	1.46485	0.03586	0.03592	22.99540
Arcd_P19_4_3_5_3	0.18529	1.81471	0.03604	0.03613	0.00000
Arcd_P17_2_2_5_4	0.240286	1.75971	0.03621	0.03623	21.85640

name	c_l	c_a	Δ_l	Δ_a	θ
Arcd_P17_3_2_5_3	0.0347376	1.96526	0.03879	0.03894	22.77340
Arcd_P20_2_4_4_6	0.126945	1.87305	0.04011	0.04025	22.18110
Arcd_P17_2_4_3_4	0.186541	1.81346	0.04048	0.04061	2.42134
Arcd_P19_3_2_6_4	0.0810838	1.91892	0.04331	0.04331	22.34730
Arcd_P15_1_3_3_4	0.0389045	1.9611	0.03399	0.04447	21.91230
Arcd_P15_1_2_3_5	0.0931648	1.90684	0.04452	0.04454	22.89400
Arcd_P20_4_2_6_4	0.056312	1.94369	0.04510	0.04521	22.92880
Arcd_P20_3_3_4_6	0.243359	1.75664	0.04665	0.04664	24.35600
Arcd_P19_3_3_4_5	0.290277	1.70972	0.04668	0.04669	23.57390
Arcd_P15_2_2_3_4	0.370525	1.62948	0.04677	0.04676	23.94530
Arcd_P18_2_3_6_3	0.292533	1.70747	0.04703	0.04706	37.37740
Arcd_P20_3_3_7_3	0.190169	1.80983	0.04718	0.04718	37.37740
Arcd_P19_2_2_6_5	0.269856	1.73014	0.04737	0.04736	20.90170
Arcd_P20_4_4_4_4	0.316854	1.68315	0.04800	0.04801	0.00001
Arcd_P13_2_1_3_3	0.331226	1.66877	0.04917	0.04918	23.86830
Arcd_P17_3_2_4_4	0.323465	1.67654	0.04941	0.04944	24.22910
Arcd_P14_2_2_3_3	0.379837	1.62016	0.05079	0.05079	21.91560
Arcd_P16_3_2_5_2	0.258988	1.74101	0.05122	0.05195	52.62620
Arcd_P16_1_3_4_4	1.98798	0.0120226	0.00004	0.05216	23.86490
Arcd_P19_2_5_3_5	0.128718	1.87128	0.05272	0.05277	5.77065
Arcd_P16_1_3_3_5	0.57544	1.42456	0.00898	0.05336	22.63380
Arcd_P16_1_2_4_5	0.0798449	1.92016	0.05368	0.05403	22.25850
Arcd_P16_1_4_3_4	0.0112202	1.98878	0.05480	0.05479	20.31040
Arcd_P19_4_2_6_3	0.0328127	1.96719	0.05456	0.05487	23.00930
Arcd_P17_4_2_5_2	0.001	1.999	0.03729	0.05560	0.00001
Arcd_P19_2_3_6_4	0.225895	1.77411	0.05595	0.05596	25.27430
Arcd_P20_3_4_4_5	0.288403	1.7116	0.05594	0.05629	7.01017
Arcd_P16_3_3_3_3	0.414355	1.58564	0.05640	0.05645	0.00001
Arcd_P17_1_4_4_4	1.83404	0.165959	0.00012	0.05697	29.67940
Arcd_P14_2_1_4_3	0.154882	1.84512	0.03595	0.05698	22.51740
Arcd_P18_3_3_4_4	0.238651	1.76135	0.05721	0.05718	17.97370
Arcd_P14_1_2_4_3	0.393001	1.607	0.05725	0.05724	23.21290
Arcd_P17_3_2_6_2	0.0239883	1.97601	0.05730	0.05734	37.37740
Arcd_P13_1_3_2_3	0.30903	1.69097	0.03581	0.05763	8.23301
Arcd_P17_1_3_5_4	0.283461	1.71654	0.05902	0.05903	25.48190
Arcd_P18_3_4_3_4	0.265392	1.73461	0.05935	0.05935	0.00002
Arcd_P20_3_5_3_5	0.188664	1.81134	0.05922	0.05952	0.00005
Arcd_P18_3_2_6_3	0.0831399	1.91686	0.06079	0.06081	23.17630

name	c_l	c_a	Δ_l	Δ_a	θ
Arcd_P11_1_1_3_2	0.333056	1.66694	0.06101	0.06105	22.11810
Arcd_P17_1_3_4_5	0.0324616	1.96754	0.06102	0.06109	22.65560
Arcd_P16_2_3_3_4	0.235283	1.76472	0.06108	0.06118	18.53320
Arcd_P17_1_3_3_6	0.165959	1.83404	0.03709	0.06137	22.98180
Arcd_P19_4_2_5_4	0.22237	1.77763	0.06173	0.06176	24.19000
Arcd_P17_1_4_3_5	0.0409772	1.95902	0.06198	0.06234	20.77570
Arcd_P18_1_4_5_4	1	1	0.00516	0.06250	37.37740
Arcd_P18_4_2_6_2	0.00131826	1.99868	0.04614	0.06255	0.00002
Arcd_P12_2_1_3_2	0.0789383	1.92106	0.06321	0.06331	22.78540
Arcd_P17_2_3_3_5	0.213468	1.78653	0.06336	0.06336	23.01830
Arcd_P18_4_3_4_3	0.32756	1.67244	0.06346	0.06343	0.00000
Arcd_P16_3_2_4_3	0.240433	1.75957	0.06364	0.06365	22.19310
Arcd_P20_2_5_3_6	0.141788	1.85821	0.06374	0.06378	11.33840
Arcd_P18_2_3_3_6	0.182022	1.81798	0.06467	0.06472	23.83210
Arcd_P18_2_4_3_5	0.174121	1.82588	0.06511	0.06519	13.19510
Arcd_P12_1_2_2_3	0.262327	1.73767	0.06577	0.06576	21.50510
Arcd_P20_4_2_7_3	0.0292964	1.9707	0.06600	0.06598	23.36590
Arcd_P18_1_4_4_5	0.00977237	1.99023	0.06660	0.06672	24.17540
Arcd_P14_1_3_3_3	0.234423	1.76558	0.06662	0.06678	52.62630
Arcd_P16_1_2_5_4	0.390455	1.60954	0.06739	0.06740	20.73430
Arcd_P12_2_2_2_2	0.561647	1.43835	0.06742	0.06742	0.00000
Arcd_P18_1_3_4_6	0.025438	1.97456	0.06812	0.06831	22.57200
Arcd_P18_1_3_5_5	0.140918	1.85908	0.06818	0.06832	22.22710
Arcd_P18_1_4_3_6	1.97601	0.0239883	0.00005	0.06838	22.28280
Arcd_P19_4_2_7_2	0.001	1.999	0.04042	0.06867	37.37740
Arcd_P19_5_2_6_2	0.00107152	1.99893	0.03795	0.06867	0.00003
Arcd_P20_5_3_5_3	0.271036	1.72896	0.06863	0.06877	0.00001
Arcd_P20_2_3_4_7	0.0588844	1.94112	0.06912	0.03503	23.29530
Arcd_P18_2_2_6_4	0.280351	1.71965	0.06949	0.06951	20.90090
Arcd_P20_2_4_3_7	0.135687	1.86431	0.06989	0.07001	23.13670
Arcd_P19_2_4_3_6	0.150066	1.84993	0.07011	0.07012	21.77320
Arcd_P20_4_3_4_5	0.305425	1.69457	0.07021	0.07026	24.47670
Arcd_P18_1_5_3_5	0.0295121	1.97049	0.07074	0.07096	18.74590
Arcd_P19_1_4_5_5	0.0881847	1.91182	0.07170	0.07176	25.96810
Arcd_P18_4_2_5_3	0.163187	1.83681	0.07207	0.07209	22.48770
Arcd_P20_3_2_7_4	0.185331	1.81467	0.07248	0.07250	21.35380
Arcd_P19_1_5_4_5	0.00131826	1.99868	0.01049	0.07251	24.60150
Arcd_P20_4_3_5_4	0.218776	1.78122	0.05820	0.07259	15.69770

name	c_l	c_a	Δ_l	Δ_a	θ
Arcd_P19_1_4_4_6	0.00762006	1.99238	0.07355	0.07362	23.15520
Arcd_P20_1_4_7_4	0.616595	1.3834	0.03288	0.07407	37.37740
Arcd_P20_5_2_7_2	0.00123027	1.99877	0.04197	0.07415	37.37740
Arcd_P14_2_3_2_3	0.310337	1.68966	0.07417	0.07419	0.00002
Arcd_P20_1_5_5_5	1.8651	0.134896	0.00014	0.07435	33.93760
Arcd_P19_1_4_3_7	0.0954993	1.9045	0.05782	0.07441	22.66880
Arcd_P18_1_3_3_7	0.0776247	1.92238	0.07443	0.06847	23.19550
Arcd_P19_2_3_7_3	0.310643	1.68936	0.07455	0.07448	37.37740
Arcd_P19_1_3_6_5	0.248847	1.75115	0.07453	0.07464	21.87880
Arcd_P19_1_3_5_6	0.0646364	1.93536	0.07478	0.07479	22.11280
Arcd_P19_3_3_3_6	0.237405	1.76259	0.07492	0.07491	24.96700
Arcd_P11_1_1_2_3	0.165959	1.83404	0.07502	0.03512	23.31980
Arcd_P10_1_1_3_1	0.249077	1.75092	0.07493	0.07507	37.37740
Arcd_P13_1_2_2_4	0.216972	1.78303	0.07522	0.07537	23.24750
Arcd_P20_1_4_6_5	0.19778	1.80222	0.07596	0.07604	28.29470
Arcd_P19_1_5_3_6	0.0397519	1.96025	0.07603	0.07625	19.66030
Arcd_P20_5_2_6_3	0.104403	1.8956	0.07691	0.07705	22.79720
Arcd_P15_3_1_4_3	0.165959	1.83404	0.06659	0.07798	23.59830
Arcd_P19_4_4_3_4	0.307363	1.69264	0.07807	0.07807	0.00000
Arcd_P20_1_5_4_6	0.001	1.999	0.07361	0.07837	23.95730
Arcd_P17_1_3_6_3	0.390358	1.60964	0.07852	0.07852	37.37740
Arcd_P20_1_4_5_6	0.038657	1.96134	0.07901	0.07910	23.13130
Arcd_P14_1_3_2_4	0.163857	1.83614	0.07930	0.07929	18.68470
Arcd_P14_3_2_3_2	0.417223	1.58278	0.07938	0.07940	0.00001
Arcd_P20_1_4_4_7	0.0103429	1.98966	0.07934	0.07949	22.77590
Arcd_P13_1_1_4_3	0.420696	1.5793	0.07963	0.07963	20.50000
Arcd_P20_1_4_3_8	0.068073	1.93193	0.07962	0.07993	22.99480
Arcd_P15_1_4_2_4	1.96369	0.0363078	0.00014	0.08019	8.50625
Arcd_P20_1_5_3_7	1.96369	0.0363078	0.00007	0.08025	21.72560
Arcd_P20_1_3_5_7	0.036947	1.96305	0.08023	0.08036	22.30620
Arcd_P20_1_3_6_6	0.137904	1.8621	0.08068	0.08075	21.34200
Arcd_P19_3_4_3_5	0.339476	1.66052	0.08140	0.08140	0.00090
Arcd_P18_3_3_3_5	0.271038	1.72896	0.08190	0.08190	23.85850
Arcd_P16_3_2_3_4	0.382923	1.61708	0.08274	0.08273	25.46760
Arcd_P11_2_1_3_1	0.00213796	1.99786	0.01180	0.08334	0.00003
Arcd_P16_4_2_4_2	0.297946	1.70205	0.08498	0.08502	0.00001
Arcd_P20_3_4_3_6	0.184055	1.81594	0.08556	0.08555	21.90340
Arcd_P20_1_3_7_5	0.30222	1.69778	0.08617	0.08617	21.73650

name	c_l	c_a	Δ_l	Δ_a	θ
Arcd_P16_3_1_5_3	0.125893	1.87411	0.05075	0.08633	22.69060
Arcd_P20_4_2_8_2	0.107379	1.89262	0.08669	0.08684	37.37740
Arcd_P18_4_2_4_4	0.330871	1.66913	0.08689	0.08701	25.71110
Arcd_P16_2_4_2_4	0.164503	1.8355	0.08806	0.08806	0.00013
Arcd_P15_1_3_2_5	0.145478	1.85452	0.08827	0.08834	22.29490
Arcd_P18_5_2_5_2	0.212716	1.78728	0.08887	0.08888	0.00001
Arcd_P18_3_2_7_2	0.216939	1.78306	0.09039	0.09041	37.37740
Arcd_P20_2_3_7_4	0.256981	1.74302	0.09048	0.09047	27.42590
Arcd_P20_6_2_6_2	0.137197	1.8628	0.09090	0.09091	0.00001
Arcd_P18_1_3_6_4	0.313043	1.68696	0.09120	0.09129	27.21280
Arcd_P16_1_4_2_5	0.100214	1.89979	0.09153	0.09165	15.81530
Arcd_P14_3_1_4_2	0.0527724	1.94723	0.09126	0.09170	22.90730
Arcd_P20_5_2_5_4	0.282833	1.71717	0.09270	0.09273	25.73910
Arcd_P20_4_3_3_6	0.251189	1.74881	0.09431	0.08497	26.10170
Arcd_P17_4_3_3_3	0.389986	1.61001	0.09429	0.09439	0.00000
Arcd_P14_2_2_2_4	0.336484	1.66352	0.09472	0.09477	24.72050
Arcd_P20_2_3_8_3	0.316051	1.68395	0.09555	0.09554	37.37740
Arcd_P17_2_4_2_5	0.252543	1.74746	0.09630	0.09637	4.04686
Arcd_P20_5_4_3_4	0.329771	1.67023	0.09651	0.09660	0.00001
Arcd_P17_1_5_2_5	1.99893	0.00107152	0.00000	0.09669	10.16190
Arcd_P19_5_3_4_3	0.335988	1.66401	0.09705	0.09717	0.00001
Arcd_P17_3_4_2_4	0.243446	1.75655	0.09736	0.09737	0.00001
Arcd_P16_1_3_2_6	0.121327	1.87867	0.09785	0.09791	23.17210
Arcd_P19_3_2_7_3	0.185805	1.81419	0.09764	0.09794	23.93170
Arcd_P17_1_2_6_4	0.381904	1.6181	0.09917	0.09915	20.08520

2.29 Arco

2.29.1 Regular Cages

name	θ	name	θ	name
Arco_P8_1_1_1_1	2.09131e-06	Arco_P12_2_2_2_2	3.5202e-06	Arco_P20_4_4_4_4
Arco_P12_1_2_3_2	54.7356	Arco_P16_3_3_3_3	4.97831e-06	

2.29.2 Near-Miss Cages

name	c_l	c_a	Δ_l	Δ_a	θ
Arco_P11_1_2_2_2	0.00123027	1.99877	0.00020	0.00109	29.41600
Arco_P19_3_4_4_4	0.131006	1.86899	0.00430	0.00430	14.31100
Arco_P15_2_3_3_3	0.122292	1.87771	0.00441	0.00442	19.55150
Arco_P11_1_1_2_3	0.218776	1.78122	0.00511	0.00277	30.73440
Arco_P18_2_4_4_4	1.99755	0.00245471	0.00000	0.00589	35.74080
Arco_P19_2_4_5_4	1.9045	0.0954993	0.00002	0.00688	50.45550
Arco_P18_2_3_4_5	0.186269	1.81373	0.01196	0.01196	30.90340
Arco_P16_2_3_4_3	1.98521	0.0147911	0.00001	0.01439	44.63040
Arco_P20_3_4_5_4	1.99737	0.00263027	0.00000	0.01440	35.85450
Arco_P17_2_4_3_4	0.40738	1.59262	0.00357	0.01452	20.12190
Arco_P19_2_4_4_5	1.99149	0.00851138	0.00000	0.01533	31.81300
Arco_P18_4_3_4_3	1.92756	0.0724436	0.00001	0.01563	0.00000
Arco_P20_2_4_6_4	0.31511	1.68489	0.01593	0.01597	54.73560
Arco_P20_3_3_5_5	0.0650319	1.93497	0.01661	0.01662	30.87650
Arco_P18_3_4_3_4	0.165959	1.83404	0.01584	0.01677	5.26289
Arco_P19_2_3_4_6	0.0648589	1.93514	0.01713	0.01714	30.57510
Arco_P17_2_2_4_5	0.266067	1.73393	0.01724	0.01725	30.16070
Arco_P17_2_3_4_4	0.191344	1.80866	0.01976	0.01976	33.96150
Arco_P12_1_2_2_3	0.0918326	1.90817	0.01990	0.01989	29.47140
Arco_P15_2_2_3_4	0.292522	1.70748	0.02037	0.02040	30.59040
Arco_P20_2_5_4_5	0.00162181	1.99838	0.00281	0.02150	31.07490
Arco_P16_2_3_3_4	0.186624	1.81338	0.02197	0.02198	25.92020
Arco_P20_2_4_4_6	0.0184294	1.98157	0.02214	0.02222	30.59420
Arco_P20_3_4_4_5	0.218758	1.78124	0.02289	0.02288	20.93080
Arco_P20_2_3_4_7	0.0632505	1.93675	0.02337	0.02337	30.67010
Arco_P20_3_3_4_6	0.241296	1.7587	0.02435	0.02438	30.96290
Arco_P19_3_3_6_3	0.00245471	1.99755	0.01038	0.02451	54.73560
Arco_P14_2_2_3_3	0.109648	1.89035	0.02205	0.02598	29.40710
Arco_P17_3_3_4_3	0.184315	1.81569	0.02715	0.02715	9.23018
Arco_P14_3_2_3_2	1.97761	0.0223872	0.00000	0.02778	0.00000
Arco_P20_5_3_5_3	1.79583	0.204174	0.00002	0.02779	0.00001
Arco_P19_3_3_4_5	0.196498	1.8035	0.02824	0.02826	29.41840
Arco_P19_2_5_3_5	1.92238	0.0776247	0.00006	0.02844	20.19110
Arco_P19_3_3_5_4	0.0584307	1.94157	0.02851	0.02853	34.11430
Arco_P19_4_4_3_4	0.267909	1.73209	0.02903	0.02908	0.00001
Arco_P14_2_3_2_3	0.660693	1.33931	0.00724	0.02925	5.76676
Arco_P10_1_1_2_2	0.0849328	1.91507	0.02952	0.02956	30.76850
Arco_P20_2_3_5_6	0.244676	1.75532	0.02964	0.02972	30.25800

name	c_l	c_a	Δ_l	Δ_a	θ
Arco_P20_3_5_3_5	1.99023	0.00977237	0.00001	0.02972	7.60606
Arco_P18_3_2_4_5	0.19235	1.80765	0.02996	0.03003	31.50310
Arco_P20_2_4_5_5	0.268265	1.73174	0.03017	0.03017	40.01910
Arco_P14_1_3_3_3	1.9805	0.0194984	0.00001	0.03110	43.15930
Arco_P18_2_4_3_5	0.131612	1.86839	0.03171	0.03171	24.02720
Arco_P18_3_3_5_3	0.30903	1.69097	0.01577	0.03181	48.43690
Arco_P19_3_2_5_5	0.0831764	1.91682	0.03033	0.03192	30.53580
Arco_P18_3_3_4_4	0.115325	1.88467	0.03237	0.03240	24.30760
Arco_P17_2_3_3_5	0.16362	1.83638	0.03326	0.03332	29.25420
Arco_P13_1_3_2_3	0.001	1.999	0.03136	0.03492	27.43960
Arco_P16_2_2_4_4	0.195719	1.80428	0.03585	0.03587	30.62260
Arco_P20_2_5_3_6	0.102329	1.89767	0.03450	0.03613	23.25910
Arco_P17_3_2_4_4	0.102285	1.89771	0.03665	0.03672	30.73440
Arco_P14_2_2_4_2	0.00301995	1.99698	0.01636	0.03704	54.73560
Arco_P13_2_2_3_2	1.99023	0.00977237	0.00001	0.03785	25.98170
Arco_P13_1_2_2_4	0.117954	1.88205	0.03776	0.03785	30.19900
Arco_P15_1_3_4_3	1	1	0.00505	0.03846	54.73560
Arco_P17_4_3_3_3	0.336927	1.66307	0.03907	0.03913	0.00000
Arco_P18_2_3_3_6	0.142405	1.8576	0.04037	0.04037	30.48210
Arco_P19_2_4_3_6	0.109983	1.89002	0.04135	0.04142	27.66690
Arco_P19_4_3_5_3	0.196941	1.80306	0.04212	0.04222	1.84688
Arco_P15_3_3_2_3	0.333761	1.66624	0.04324	0.04324	0.00001
Arco_P20_4_3_6_3	0.17021	1.82979	0.04332	0.04331	54.10990
Arco_P20_4_2_5_5	0.0932544	1.90675	0.04338	0.04338	31.43430
Arco_P14_1_2_3_4	0.225696	1.7743	0.04371	0.04381	30.76770
Arco_P16_3_2_4_3	0.050942	1.94906	0.04390	0.04402	30.21850
Arco_P19_2_3_5_5	0.218238	1.78176	0.04410	0.04410	32.38240
Arco_P18_3_2_5_4	0.0614256	1.93857	0.04437	0.04454	30.90600
Arco_P19_5_3_4_3	0.226259	1.77374	0.04456	0.04460	0.00000
Arco_P16_2_2_3_5	0.0954993	1.9045	0.04496	0.01745	31.00580
Arco_P19_3_4_3_5	0.302943	1.69706	0.04605	0.04615	10.38430
Arco_P20_2_4_3_7	0.102792	1.89721	0.04685	0.04688	29.38350
Arco_P18_2_3_6_3	0.292672	1.70733	0.04702	0.04705	54.73560
Arco_P20_3_3_7_3	0.190117	1.80988	0.04717	0.04717	54.73560
Arco_P14_1_3_2_4	0.0672995	1.9327	0.04706	0.04720	27.66840
Arco_P16_1_3_5_3	0.409869	1.59013	0.04755	0.04762	54.73560
Arco_P16_4_2_4_2	0.0275423	1.97246	0.00043	0.04762	0.00001
Arco_P16_3_2_5_2	0.0017378	1.99826	0.02780	0.04765	54.73560

name	c_l	c_a	Δ_l	Δ_a	θ
Arco_P20_5_4_3_4	0.321119	1.67888	0.04833	0.04835	0.00000
Arco_P13_1_2_3_3	0.328202	1.6718	0.04855	0.04859	35.46080
Arco_P15_1_3_3_4	1.91087	0.0891251	0.00024	0.04903	34.48980
Arco_P16_2_4_2_4	1.99543	0.00457088	0.00001	0.05020	9.41558
Arco_P20_4_3_5_4	0.181718	1.81828	0.05049	0.05047	13.39290
Arco_P19_4_2_5_4	0.0677077	1.93229	0.05128	0.05134	30.97840
Arco_P13_2_1_3_3	0.177828	1.82217	0.03153	0.05202	30.93140
Arco_P14_1_2_2_5	0.133265	1.86673	0.05298	0.05311	30.82860
Arco_P18_2_2_5_5	0.270418	1.72958	0.05405	0.05402	28.94620
Arco_P15_1_2_3_5	0.0781783	1.92182	0.05558	0.05568	30.57450
Arco_P16_1_4_3_4	1.97911	0.020893	0.00001	0.05621	36.10680
Arco_P15_1_3_2_5	0.100225	1.89977	0.05615	0.05633	29.11290
Arco_P15_2_2_4_3	0.129884	1.87012	0.05631	0.05635	35.19410
Arco_P17_1_4_4_4	1.96612	0.0338844	0.00003	0.05639	48.81930
Arco_P17_3_4_2_4	0.119101	1.8809	0.05636	0.05643	0.22613
Arco_P13_1_2_4_2	0.462364	1.53764	0.05687	0.05689	54.73560
Arco_P15_2_2_5_2	0.22691	1.77309	0.05715	0.05713	54.73560
Arco_P17_3_2_6_2	0.0236243	1.97638	0.05678	0.05732	54.73560
Arco_P20_4_4_3_5	0.406597	1.5934	0.05757	0.05760	0.00100
Arco_P15_1_4_2_4	0.00638805	1.99361	0.05825	0.05858	26.91000
Arco_P18_4_2_5_3	0.04074	1.95926	0.05842	0.05860	31.37820
Arco_P19_3_3_3_6	0.214884	1.78512	0.05868	0.05873	31.03710
Arco_P19_4_3_4_4	0.402165	1.59784	0.05918	0.05913	0.24399
Arco_P20_4_2_6_4	0.0519983	1.948	0.05936	0.05937	31.13000
Arco_P18_3_3_3_5	0.241629	1.75837	0.05943	0.05950	27.52520
Arco_P17_3_3_3_4	0.393782	1.60622	0.06014	0.06015	6.90998
Arco_P17_2_4_2_5	0.203641	1.79636	0.06115	0.06128	15.42380
Arco_P13_3_2_2_2	0.453113	1.54689	0.06139	0.06139	0.00000
Arco_P16_1_3_3_5	0.0526953	1.9473	0.06170	0.06191	31.58490
Arco_P20_3_4_3_6	0.173856	1.82614	0.06197	0.06198	23.86910
Arco_P20_3_2_6_5	0.169395	1.83061	0.06215	0.06226	29.30490
Arco_P18_1_4_5_4	1	1	0.00515	0.06250	54.73560
Arco_P10_2_1_2_1	1.99868	0.00131826	0.00000	0.06250	0.00000
Arco_P18_5_2_5_2	1.98521	0.0147911	0.00001	0.06250	0.00000
Arco_P18_4_2_6_2	0.00107152	1.99893	0.03727	0.06255	54.73560
Arco_P18_2_3_5_4	0.329409	1.67059	0.06287	0.06285	44.96550
Arco_P16_1_3_4_4	0.358876	1.64112	0.06361	0.06364	42.53880
Arco_P10_1_2_1_2	1.99543	0.00457088	0.00003	0.06406	7.17512

name	c_l	c_a	Δ_l	Δ_a	θ
Arco_P18_4_4_2_4	0.244361	1.75564	0.06473	0.06474	0.00000
Arco_P20_3_3_6_4	0.30017	1.69983	0.06550	0.06556	48.63910
Arco_P20_4_3_4_5	0.193887	1.80611	0.06567	0.06570	27.71020
Arco_P18_2_5_2_5	1.99206	0.00794328	0.00002	0.06608	12.34630
Arco_P15_3_2_4_2	0.267609	1.73239	0.06602	0.06629	1.27374
Arco_P15_2_3_2_4	0.313531	1.68647	0.06656	0.06649	14.41840
Arco_P17_1_4_3_5	0.00899943	1.991	0.06703	0.06704	33.32520
Arco_P16_1_3_2_6	0.109952	1.89005	0.06703	0.06747	30.05670
Arco_P19_2_3_3_7	0.0724436	1.92756	0.06753	0.04110	30.91110
Arco_P18_1_4_4_5	0.120125	1.87988	0.06762	0.06781	40.00790
Arco_P12_1_1_3_3	0.438577	1.56142	0.06797	0.06800	28.94980
Arco_P16_1_4_2_5	0.0371879	1.96281	0.06803	0.06805	26.68080
Arco_P17_1_3_4_5	0.160402	1.8396	0.06794	0.06812	32.94260
Arco_P15_4_2_3_2	0.293668	1.70633	0.06817	0.06821	0.00000
Arco_P19_1_4_6_4	1	1	0.01083	0.06863	54.73560
Arco_P19_4_2_7_2	0.00107152	1.99893	0.04157	0.06866	54.73560
Arco_P9_1_1_2_1	1.33931	0.660693	0.00743	0.06954	46.40160
Arco_P19_1_4_5_5	0.297573	1.70243	0.06955	0.06956	48.49310
Arco_P19_3_5_2_5	1.49881	0.501187	0.00145	0.06966	1.80665
Arco_P16_4_3_2_3	0.407016	1.59298	0.07024	0.07026	0.00001
Arco_P18_3_4_2_5	0.338408	1.66159	0.07030	0.07030	2.92464
Arco_P17_4_2_5_2	0.155365	1.84463	0.07104	0.07102	0.00001
Arco_P17_5_2_4_2	0.155649	1.84435	0.07103	0.07113	0.00000
Arco_P16_3_2_3_4	0.293868	1.70613	0.07108	0.07114	30.95670
Arco_P17_1_3_3_6	0.0440183	1.95598	0.07123	0.07126	30.98020
Arco_P14_2_2_2_4	0.310077	1.68992	0.07157	0.07164	30.31150
Arco_P19_1_5_4_5	1.99838	0.00162181	0.00000	0.07224	42.41680
Arco_P19_6_2_5_2	0.047863	1.95214	0.07333	0.07331	0.00001
Arco_P19_5_2_6_2	0.0492667	1.95073	0.07342	0.07346	0.00000
Arco_P20_5_2_6_3	0.0588844	1.94112	0.05602	0.07355	32.44130
Arco_P15_1_2_4_4	0.355156	1.64484	0.07362	0.07366	30.86130
Arco_P20_1_4_6_5	0.47219	1.52781	0.07402	0.07407	54.73500
Arco_P20_1_4_7_4	0.616595	1.3834	0.03300	0.07407	54.73560
Arco_P20_6_2_6_2	1.95214	0.047863	0.00001	0.07408	0.00001
Arco_P20_5_2_7_2	0.00114815	1.99885	0.04092	0.07412	54.73560
Arco_P18_1_5_3_5	0.001	1.999	0.00802	0.07412	33.02080
Arco_P17_1_4_2_6	1.998	0.00199526	0.00001	0.07418	28.44590
Arco_P20_1_5_5_5	1.91682	0.0831764	0.00009	0.07426	51.91080

name	c_l	c_a	Δ_l	Δ_a	θ
Arco_P19_2_5_2_6	0.0954997	1.9045	0.07424	0.07433	16.51520
Arco_P18_5_3_3_3	0.34065	1.65935	0.07443	0.07443	0.00000
Arco_P17_3_2_5_3	0.0954993	1.9045	0.07311	0.07445	37.79320
Arco_P19_2_3_7_3	0.31076	1.68924	0.07449	0.07453	54.73560
Arco_P10_1_1_3_1	0.248758	1.75124	0.07507	0.07507	54.73560
Arco_P20_4_5_2_5	0.11635	1.88365	0.07504	0.07525	0.00002
Arco_P20_6_3_4_3	0.278043	1.72196	0.07561	0.07563	0.00000
Arco_P20_3_5_2_6	0.167942	1.83206	0.07578	0.07582	6.46031
Arco_P18_1_4_3_6	0.0158502	1.98415	0.07585	0.07586	31.91610
Arco_P17_1_5_2_5	0.0109854	1.98901	0.07592	0.07600	26.46060
Arco_P20_4_3_3_6	0.251892	1.74811	0.07652	0.07660	31.73560
Arco_P19_5_4_2_4	0.311279	1.68872	0.07674	0.07686	0.00001
Arco_P12_2_1_3_2	0.0687438	1.93126	0.07687	0.07694	31.05340
Arco_P18_2_4_2_6	0.153975	1.84602	0.07699	0.07710	23.72250
Arco_P18_1_3_4_6	0.0840249	1.91598	0.07781	0.07795	31.14370
Arco_P16_2_3_2_5	0.176529	1.82347	0.07804	0.07803	26.69220
Arco_P20_2_6_2_6	1.96612	0.0338844	0.00005	0.07844	14.35910
Arco_P17_1_3_6_3	0.390961	1.60904	0.07844	0.07851	54.73560
Arco_P20_2_3_6_5	0.221166	1.77883	0.07896	0.07902	34.01890
Arco_P18_1_3_3_7	0.0464389	1.95356	0.07920	0.07924	30.85980
Arco_P17_2_2_5_4	0.242855	1.75715	0.07946	0.07949	30.63580
Arco_P19_1_4_4_6	0.0745079	1.92549	0.07953	0.07965	34.01050
Arco_P18_4_2_4_4	0.208289	1.79171	0.07967	0.07970	31.18930
Arco_P17_2_3_2_6	0.15672	1.84328	0.07990	0.08005	29.95130
Arco_P18_1_4_2_7	0.0818362	1.91816	0.08047	0.08053	29.09120
Arco_P19_1_5_3_6	0.001	1.999	0.06551	0.08081	32.51370
Arco_P20_1_5_4_6	0.0282647	1.97174	0.08097	0.08108	37.70150
Arco_P18_1_3_5_5	0.263991	1.73601	0.08142	0.08148	34.38700
Arco_P19_3_2_6_4	0.160654	1.83935	0.08234	0.08235	30.85860
Arco_P19_4_4_2_5	0.393836	1.60616	0.08276	0.08276	0.00057
Arco_P20_1_4_5_6	0.151259	1.84874	0.08261	0.08283	36.18610
Arco_P16_3_3_2_4	0.52062	1.47938	0.08299	0.08298	0.00129
Arco_P18_1_5_2_6	0.0216821	1.97832	0.08313	0.08313	26.31600
Arco_P19_1_4_3_7	0.0191776	1.98082	0.08299	0.08323	31.25360
Arco_P11_2_2_1_2	0.660693	1.33931	0.05503	0.08333	0.00000
Arco_P20_2_5_2_7	0.110556	1.88944	0.08369	0.08384	21.57490
Arco_P14_2_1_4_3	0.154882	1.84512	0.08294	0.08419	29.98180
Arco_P19_1_3_5_6	0.159966	1.84003	0.08402	0.08422	30.88520

name	c_l	c_a	Δ_l	Δ_a	θ
Arco_P20_5_2_5_4	0.151092	1.84891	0.08508	0.08509	31.33290
Arco_P19_2_4_2_7	0.113587	1.88641	0.08525	0.08533	27.64500
Arco_P19_1_3_4_7	0.0613092	1.93869	0.08531	0.08546	30.73150
Arco_P17_1_3_2_7	0.102329	1.89767	0.08575	0.07701	30.65040
Arco_P13_2_2_2_3	0.406891	1.59311	0.08575	0.08581	14.44510
Arco_P11_2_1_3_1	0.00301995	1.99698	0.07701	0.08642	54.73560
Arco_P20_1_6_3_6	0.00107152	1.99893	0.03652	0.08656	32.12780
Arco_P18_4_3_3_4	0.426514	1.57349	0.08673	0.08676	0.00012
Arco_P20_4_2_8_2	0.10715	1.89285	0.08680	0.08684	54.73560
Arco_P20_1_5_3_7	0.00464808	1.99535	0.08673	0.08714	31.87730
Arco_P15_3_1_4_3	0.144544	1.85546	0.05321	0.08727	31.13310
Arco_P20_1_4_4_7	0.0516056	1.94839	0.08767	0.08771	32.15300
Arco_P19_1_5_2_7	1.99438	0.00562341	0.00001	0.08804	27.60480
Arco_P19_1_4_2_8	0.0871127	1.91289	0.08802	0.08821	29.86790
Arco_P19_1_6_2_6	0.0111281	1.98887	0.08814	0.08911	26.25110
Arco_P20_1_3_6_6	0.231712	1.76829	0.08882	0.08952	30.80150
Arco_P20_1_4_3_8	0.0291006	1.9709	0.08971	0.08978	30.94060
Arco_P20_5_3_4_4	0.35378	1.64622	0.09021	0.09024	0.00020
Arco_P19_2_3_6_4	0.466821	1.53318	0.09036	0.09039	54.73560
Arco_P18_3_2_7_2	0.217211	1.78279	0.09023	0.09041	54.73560
Arco_P15_3_2_3_3	0.496145	1.50385	0.09066	0.09067	1.41729
Arco_P9_1_1_1_2	0.605039	1.39496	0.09123	0.09122	27.82860
Arco_P20_1_5_2_8	1.98415	0.0158489	0.00003	0.09258	28.94900
Arco_P17_1_3_5_4	0.546493	1.45351	0.09303	0.09303	53.69760
Arco_P20_2_4_2_8	0.0937943	1.90621	0.09320	0.09327	29.36220
Arco_P14_3_1_3_3	0.230536	1.76946	0.09361	0.09373	32.55270
Arco_P20_3_4_2_7	0.14031	1.85969	0.09385	0.09398	27.02820
Arco_P20_1_6_2_7	0.0136719	1.98633	0.09438	0.09453	26.23960
Arco_P16_2_2_6_2	0.332514	1.66749	0.09503	0.09500	54.73560
Arco_P19_4_2_6_3	0.204174	1.79583	0.05689	0.09529	41.00440
Arco_P20_2_3_8_3	0.316479	1.68352	0.09555	0.09558	54.73560
Arco_P20_6_4_2_4	0.32339	1.67661	0.09661	0.09657	0.00001
Arco_P18_3_3_2_6	0.193587	1.80641	0.09662	0.09675	30.44560
Arco_P19_3_4_2_6	0.220888	1.77911	0.09682	0.09687	19.00130
Arco_P19_4_3_3_5	0.225252	1.77475	0.09715	0.09712	24.88780
Arco_P17_4_2_4_3	0.407703	1.5923	0.09753	0.09766	0.00063
Arco_P11_1_2_1_3	0.295952	1.70405	0.09976	0.09973	19.91890

2.30 Asc

2.30.1 Near-Miss Cages

name	c_l	c_a	Δ_l	Δ_a	θ
Asc_P11_2_1_1_1_1	0.269153	1.73085	0.00499	0.00273	31.83770
Asc_P20_4_3_2_3_3	0.0639476	1.93605	0.02322	0.02334	32.05240
Asc_P17_4_2_2_2_2	1.14905	0.850946	0.02697	0.02699	30.01880
Asc_P19_5_2_3_2_2	0.758578	1.24142	0.02932	0.03330	30.42100
Asc_P18_4_2_3_2_2	0.96142	1.03858	0.03461	0.03462	33.75060
Asc_P16_3_2_2_2_2	1.11255	0.887452	0.03510	0.03507	34.35290
Asc_P20_5_2_4_2_2	0.666633	1.33337	0.04289	0.04292	33.10530
Asc_P13_3_1_2_1_1	0.0953942	1.90461	0.05042	0.05042	31.57960
Asc_P19_3_3_2_3_3	0.889786	1.11021	0.05177	0.05185	35.91990
Asc_P14_2_2_1_2_2	0.822429	1.17757	0.05575	0.05577	34.25340
Asc_P15_3_2_1_2_2	0.0797657	1.92023	0.05613	0.05613	31.66210
Asc_P19_3_3_3_2_3	0.229199	1.7708	0.06737	0.06740	32.80530
Asc_P20_3_3_2_3_4	0.606176	1.39382	0.06950	0.06950	33.85890
Asc_P20_3_3_4_2_3	0.25314	1.74686	0.07226	0.07232	34.20360
Asc_P20_5_3_2_3_2	0.51489	1.48511	0.07309	0.07309	31.05380
Asc_P20_3_4_2_3_3	0.870605	1.12939	0.07735	0.07737	33.49420
Asc_P20_6_2_3_2_2	0.812813	1.18719	0.07847	0.07851	28.40560
Asc_P18_4_3_1_3_2	0.40738	1.59262	0.07531	0.07865	31.53550
Asc_P20_5_2_2_3_3	0.524561	1.47544	0.07893	0.07896	31.06790
Asc_P18_3_3_1_3_3	0.0429912	1.95701	0.07867	0.07957	32.36600
Asc_P20_4_2_3_3_3	0.616594	1.38341	0.08058	0.08057	35.78290
Asc_P17_2_3_2_2_3	0.113784	1.88622	0.08081	0.08104	32.33970
Asc_P20_3_3_3_3_3	0.864783	1.13522	0.08231	0.08238	38.87110
Asc_P20_4_3_3_2_3	0.815048	1.18495	0.08255	0.08259	30.85030
Asc_P19_3_4_1_3_3	1.56348	0.436516	0.01077	0.08366	31.73370
Asc_P17_2_3_1_3_3	0.594492	1.40551	0.08456	0.08468	35.60670
Asc_P15_4_1_3_1_1	0.0771194	1.92288	0.08520	0.08555	31.49620
Asc_P19_4_2_2_3_3	0.569702	1.4303	0.08553	0.08566	33.86540
Asc_P19_5_3_1_3_2	0.175219	1.82478	0.08608	0.08610	30.52120
Asc_P19_4_3_1_3_3	0.0550583	1.94494	0.08626	0.08636	31.65290
Asc_P18_5_2_2_2_2	0.968535	1.03147	0.08679	0.08679	27.87680
Asc_P14_4_1_2_1_1	0.134896	1.8651	0.08732	0.07956	30.55320
Asc_P18_2_3_3_2_3	0.20259	1.79741	0.08830	0.08841	33.87100
Asc_P18_2_4_1_3_3	0.587482	1.41252	0.08856	0.08857	33.69060
Asc_P19_2_4_1_3_4	0.30903	1.69097	0.05887	0.08907	32.71490
Asc_P20_4_3_1_4_3	1.18717	0.812831	0.04074	0.09002	36.55210
Asc_P20_4_4_1_3_3	1.3834	0.616595	0.05809	0.09048	30.65940
Asc_P19_4_2_4_2_2	0.991196	1.0088	0.09123	0.09123	37.66840

name	c_l	c_a	Δ_l	Δ_a	θ
Asc_P18_3_3_2_2_3	0.817748	1.18225	0.09168	0.09170	30.47280
Asc_P18_2_3_1_3_4	0.63666	1.36334	0.09212	0.09212	35.18780
Asc_P18_4_2_2_3_2	1.04929	0.950714	0.09214	0.09210	36.55500
Asc_P19_3_3_1_3_4	0.676608	1.32339	0.09211	0.09214	32.44490
Asc_P20_6_3_1_3_2	0.870964	1.12904	0.07550	0.09358	28.61230
Asc_P16_4_2_1_2_2	1.17904	0.820958	0.09379	0.09378	27.60740
Asc_P20_3_4_1_3_4	0.707946	1.29205	0.09449	0.09452	30.44170
Asc_P20_2_5_1_3_4	0.307166	1.69283	0.09460	0.09468	31.79250
Asc_P15_2_2_2_2_2	0.986283	1.01372	0.09472	0.09472	38.22200
Asc_P17_3_3_2_2_2	0.916804	1.0832	0.09487	0.09483	32.24030
Asc_P14_3_1_3_1_1	0.251189	1.74881	0.09500	0.08969	33.27550
Asc_P20_3_4_1_4_3	0.670222	1.32978	0.09498	0.09500	36.36230
Asc_P16_3_3_1_2_2	0.978625	1.02137	0.09540	0.09539	30.94200
Asc_P19_5_2_2_3_2	0.502629	1.49737	0.09541	0.09540	30.47310
Asc_P20_2_4_2_3_4	0.0722622	1.92774	0.09497	0.09542	32.76290
Asc_P17_3_2_3_2_2	1.00213	0.99787	0.09547	0.09541	38.13170
Asc_P18_4_2_1_3_3	0.552585	1.44742	0.09553	0.09556	32.44080
Asc_P19_2_3_3_2_4	0.372579	1.62742	0.09582	0.09585	33.65220
Asc_P19_3_3_1_4_3	0.784468	1.21553	0.09618	0.09626	38.34720
Asc_P19_2_3_2_3_4	0.463064	1.53694	0.09648	0.09655	36.07830
Asc_P19_4_2_3_2_3	0.723554	1.27645	0.09696	0.09693	31.71030
Asc_P20_5_3_1_3_3	0.848286	1.15171	0.09705	0.09706	28.57830
Asc_P12_2_1_2_1_1	0.380189	1.61981	0.09777	0.06117	34.02280
Asc_P12_3_1_1_1_1	0.218776	1.78122	0.09789	0.04364	30.24210
Asc_P20_3_5_1_3_3	0.607715	1.39228	0.09842	0.09845	31.74710
Asc_P18_3_2_2_3_3	0.652979	1.34702	0.09872	0.09872	36.72800
Asc_P15_2_3_1_2_2	0.856473	1.14353	0.09916	0.09917	32.60580
Asc_P16_2_3_1_2_3	0.731713	1.26829	0.09916	0.09917	30.84100
Asc_P17_4_2_1_3_2	0.580354	1.41965	0.09923	0.09933	31.38280
Asc_P18_2_3_2_3_3	0.75442	1.24558	0.09926	0.09945	38.50630
Asc_P17_3_2_2_2_3	0.832564	1.16744	0.09955	0.09962	31.76410

2.31 Asd

2.31.1 Near-Miss Cages

name	c_l	c_a	Δ_l	Δ_a	θ
Asd_P12_3_1_1_1_1	1.65633	0.343675	0.03074	0.03078	21.72200
Asd_P15_3_2_1_2_2	0.331181	1.66882	0.04288	0.04387	24.85990
Asd_P17_4_2_2_2_2	1.24142	0.758578	0.04695	0.04679	23.59830
Asd_P16_4_2_1_2_2	1	1	0.03598	0.05405	23.37100
Asd_P11_2_1_1_1_1	1.18717	0.812831	0.05973	0.05929	25.68710
Asd_P14_4_1_2_1_1	0.288403	1.7116	0.06087	0.06109	24.34010
Asd_P16_3_2_2_2_2	1.00717	0.99283	0.06740	0.07012	26.52370
Asd_P13_3_1_2_1_1	0.0363078	1.96369	0.09479	0.04749	23.22860
Asd_P14_2_2_1_2_2	1	1	0.09030	0.09566	26.71860
Asd_P16_2_3_1_2_3	0.11749	1.88251	0.09427	0.09721	24.03100

3 Comparison Between General p-cages and Symmetric Ones

The tables in this section compare the p-cages obtained in [[1]] from a full relaxation, to the symmetric p-cages that we have obtained here. We have split them in several categories. The *Missing* section lists p-cages obtained in [[1]] but for which the minimal deformation exceeds the 10% threshold. The *New* section list symmetric p-cages that were missed in [[1]]. This is mostly because the minimisation procedure for non symmetric p-cages failed to generate the best configurations for these geometries. The *Comparison* section compares the two types of p-cages found. The relative deformation is defined as

$$\Delta_{def} = 2 \max\left(\frac{\Delta_{l,sym} - \Delta_{l,gen}}{\Delta_{l,sym} + \Delta_{l,gen}}, \frac{\Delta_{a,sym} - \Delta_{a,gen}}{\Delta_{a,sym} + \Delta_{a,gen}}\right) \quad (1)$$

where the subscripts *sym* and *gen* refer respectively to the deformations of the symmetric and the general p-cages. A positive value of Δ_{def} implies that the symmetric p-cage is more deformed than the general p-cage, as one would expect. For most p-cages, Δ_{def} is quite small, resulting from numerical inaccuracies, and implying that the symmetric p-cage is effectively as little deformed as possible. There are a few cases where Δ_{def} is negative and not small. This happens when the general relaxation method found a configuration which was different but less regular than the symmetric one.

Three regular p-cages were missed out from [[1]]: sp_P16_3_5_5, hp_P18_5_5_5 and 8p_P16_5_4_4. There are all flat p-cages.

Most of the symmetric p-cages are very similar to the most general p-cages but there are differences. Some general p-cages have faces that are not identical and have a smaller deformation than the symmetric one.

3.1 tp

3.1.1 New

Name	Symmetric	
	Δ_l	Δ_a
tp_P14_7_2_2	0.07295	0.07300
tp_P9_4_1_1	0.07715	0.07719
tp_P16_1_4_8	0.09032	0.09040
tp_P14_1_3_7	0.09446	0.09449

3.1.2 Comparison

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
tp_P17_3_5_6	0.00102	0.00120	0.00120	0.00120	0.00120
tp_P17_3_4_7	-0.00211	0.00246	0.00246	0.00247	0.00247
tp_P13_2_3_5	-0.00043	0.00445	0.00446	0.00446	0.00446
tp_P14_2_4_5	0.00063	0.00688	0.00688	0.00688	0.00688
tp_P9_1_2_3	0.00229	0.00865	0.00865	0.00863	0.00863
tp_P12_2_3_4	0.00150	0.00952	0.00952	0.00951	0.00951
tp_P16_3_4_6	0.00029	0.00963	0.00964	0.00963	0.00964
tp_P15_3_4_5	0.00049	0.01259	0.01260	0.01259	0.01259
tp_P16_2_5_6	-0.00002	0.01438	0.01438	0.01438	0.01438
tp_P15_3_3_6	0.00110	0.02089	0.02089	0.02087	0.02087
tp_P15_2_4_6	0.00155	0.02101	0.02101	0.02098	0.02100
tp_P14_2_3_6	0.00031	0.02292	0.02294	0.02292	0.02293
tp_P17_8_3_3	-0.42687	0.02573	0.02576	0.03974	0.03974
tp_P16_4_4_5	0.00025	0.02584	0.02585	0.02584	0.02584
tp_P14_1_5_5	1.73321	0.02771	0.02778	0.00198	0.02973
tp_P17_2_5_7	0.01261	0.02935	0.02940	0.02898	0.02903
tp_P11_1_3_4	0.00042	0.03093	0.03093	0.03092	0.03092
tp_P11_2_2_4	0.00298	0.03355	0.03354	0.03345	0.03346
tp_P17_5_4_5	0.00019	0.03434	0.03435	0.03434	0.03434
tp_P16_2_4_7	0.01659	0.03527	0.03527	0.03483	0.03469
tp_P13_3_3_4	0.00151	0.03533	0.03535	0.03531	0.03530
tp_P13_1_4_5	0.02868	0.03609	0.03609	0.03507	0.03508
tp_P17_4_4_6	0.00034	0.03636	0.03642	0.03641	0.03641
tp_P15_1_5_6	1.93134	0.03836	0.03847	0.00067	0.04109
tp_P10_1_2_4	0.00222	0.03927	0.03931	0.03922	0.03922
tp_P14_3_3_5	0.00145	0.04082	0.04082	0.04076	0.04076
tp_P13_6_2_2	-0.41109	0.04091	0.04093	0.06211	0.06211
tp_P15_2_3_7	0.01630	0.04137	0.04144	0.04075	0.04077
tp_P16_1_6_6	-0.05450	0.04746	0.04762	0.05028	0.05029
tp_P17_2_4_8	0.00474	0.04781	0.04790	0.04790	0.04767
tp_P14_4_3_4	0.00066	0.04957	0.04955	0.04954	0.04954
tp_P10_2_2_3	0.00280	0.04961	0.04966	0.04952	0.04952
tp_P17_4_3_7	0.01540	0.00238	0.05253	0.00398	0.05173
tp_P17_1_6_7	-0.12820	0.05554	0.05556	0.06483	0.06317
tp_P16_1_5_7	1.26027	0.05580	0.05587	0.01266	0.06126

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
tp_P7_1_1_2	0.00833	0.05759	0.05763	0.05715	0.05715
tp_P12_1_3_5	0.00073	0.05768	0.05773	0.05770	0.05769
tp_P15_5_3_4	0.00083	0.05795	0.05795	0.05791	0.05790
tp_P16_6_3_4	0.00026	0.06329	0.06326	0.06327	0.06327
tp_P14_1_4_6	0.06946	0.06332	0.06331	0.05907	0.05913
tp_P16_4_3_6	0.00105	0.06511	0.06513	0.06505	0.06506
tp_P17_7_3_4	0.00004	0.06671	0.06671	0.06672	0.06671
tp_P11_1_2_5	0.00512	0.06943	0.06942	0.06908	0.06909
tp_P17_1_5_8	1.01222	0.07508	0.07508	0.02462	0.07534
tp_P15_4_3_5	0.00108	0.07657	0.07662	0.07654	0.07654
tp_P11_3_2_3	0.00137	0.07707	0.07711	0.07700	0.07700
tp_P13_1_3_6	0.00031	0.07758	0.07761	0.07760	0.07759
tp_P15_1_4_7	0.05042	0.07916	0.07918	0.07527	0.07550
tp_P12_4_2_3	0.00088	0.08897	0.08896	0.08889	0.08890
tp_P13_5_2_3	0.00089	0.09390	0.09389	0.09384	0.09381
tp_P16_5_3_5	0.00097	0.09829	0.09833	0.09824	0.09823

3.2 sp

3.2.1 Missing

Name	General	
	Δ_l	Δ_a
sp_P12_2_2_5	0.09999	0.10000
sp_P16_2_4_7	0.09747	0.09727

3.2.2 New

Name	Symmetric	
	Δ_l	Δ_a
sp_P14_7_2_2	0.07303	0.07302
sp_P9_4_1_1	0.07711	0.07718

3.2.3 Comparison

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
sp_P15_4_3_5	-0.00027	0.00419	0.00419	0.00419	0.00419
sp_P17_5_4_5	-0.00044	0.00665	0.00665	0.00665	0.00665
sp_P17_5_3_6	0.00053	0.00761	0.00760	0.00761	0.00760
sp_P16_4_4_5	0.00098	0.00801	0.00802	0.00802	0.00801
sp_P12_3_2_4	0.00236	0.00814	0.00815	0.00813	0.00813
sp_P14_4_2_5	0.07166	0.00518	0.00885	0.00482	0.00904
sp_P14_4_3_4	0.00141	0.01145	0.01145	0.01143	0.01144
sp_P13_3_3_4	0.00144	0.01400	0.01400	0.01398	0.01398
sp_P13_2_4_4	-0.00124	0.01563	0.01565	0.01565	0.01689
sp_P9_2_1_3	-0.00288	0.01992	0.01992	0.01998	0.01998
sp_P11_3_2_3	0.00310	0.02128	0.02129	0.02122	0.02122
sp_P17_4_4_6	-0.00072	0.02439	0.02439	0.02441	0.02441
sp_P16_4_3_6	0.00032	0.02456	0.02455	0.02455	0.02455
sp_P15_3_4_5	0.00011	0.02500	0.02501	0.02500	0.02501
sp_P17_8_3_3	-0.49602	0.02574	0.02575	0.04274	0.04274
sp_P10_2_2_3	0.00316	0.02616	0.02619	0.02611	0.02611
sp_P17_3_5_6	-0.01756	0.02696	0.02699	0.02744	0.02748
sp_P16_5_3_5	0.00141	0.02871	0.02874	0.02870	0.02870
sp_P15_5_3_4	0.00168	0.03291	0.03292	0.03287	0.03286
sp_P14_3_3_5	0.00109	0.03811	0.03810	0.03807	0.03807
sp_P15_2_5_5	-0.14079	0.03928	0.03931	0.04524	0.04526
sp_P8_2_1_2	0.00773	0.03979	0.03983	0.03952	0.03952
sp_P13_6_2_2	-0.50373	0.04092	0.04092	0.06865	0.06847
sp_P13_3_2_5	0.00938	0.04182	0.04184	0.04146	0.04145
sp_P14_2_4_5	0.01074	0.04309	0.04309	0.04263	0.04266
sp_P12_2_3_4	0.00212	0.04399	0.04405	0.04397	0.04396
sp_P13_4_2_4	0.00188	0.04417	0.04417	0.04409	0.04409
sp_P17_4_3_7	0.01398	0.04542	0.04543	0.04483	0.04480
sp_P16_2_5_6	-0.12386	0.04868	0.04876	0.05511	0.05528
sp_P16_3_4_6	0.00064	0.05106	0.05113	0.05110	0.05110
sp_P16_6_3_4	0.00312	0.05166	0.05166	0.05150	0.05158
sp_P15_5_2_5	0.01123	0.04319	0.05423	0.04271	0.05440
sp_P17_2_6_6	-0.11481	0.05619	0.05645	0.06324	0.06333
sp_P17_6_3_5	0.00090	0.05980	0.05985	0.05985	0.05980
sp_P7_1_1_2	0.00710	0.06096	0.06101	0.06058	0.06058

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
sp_P12_4_2_3	0.00311	0.06170	0.06169	0.06151	0.06151
sp_P10_1_3_3	0.13933	0.06247	0.06250	0.05433	0.06389
sp_P15_3_3_6	0.00091	0.06251	0.06262	0.06257	0.06256
sp_P11_2_2_4	0.00137	0.06439	0.06438	0.06430	0.06430
sp_P10_3_1_3	0.03693	0.06039	0.06535	0.05820	0.06657
sp_P17_2_5_7	0.00038	0.06645	0.06648	0.06644	0.06645
sp_P17_7_3_4	0.00124	0.06650	0.06651	0.06642	0.06662
sp_P17_3_4_7	0.01250	0.07323	0.07326	0.07237	0.07235
sp_P15_2_4_6	0.01849	0.07502	0.07510	0.07373	0.07372
sp_P9_1_2_3	0.02630	0.08207	0.08207	0.07994	0.07994
sp_P11_1_3_4	-0.11399	0.08329	0.08334	0.09341	0.09341
sp_P13_2_3_5	0.00583	0.08346	0.08351	0.08304	0.08302
sp_P16_3_3_7	0.04343	0.08542	0.08543	0.08179	0.08238
sp_P16_6_2_5	0.00087	0.08992	0.08997	0.08988	0.08989
sp_P13_5_2_3	0.00214	0.09182	0.09186	0.09166	0.09166
sp_P14_5_2_4	0.00173	0.09408	0.09409	0.09392	0.09393

3.3 pp

3.3.1 Missing

Name	General	
	Δ_l	Δ_a
pp_P17_3_4_7	0.09950	0.09954

3.3.2 New

Name	Symmetric	
	Δ_l	Δ_a
pp_P14_7_2_2	0.07293	0.07301
pp_P9_4_1_1	0.07718	0.07718
pp_P16_2_5_6	0.08787	0.08795
pp_P17_2_6_6	0.09524	0.09526
pp_P17_2_5_7	0.09602	0.09605
pp_P15_2_4_6	0.09670	0.09662
pp_P14_6_2_3	0.09921	0.09928

3.3.3 Comparison

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
pp_P17_4_5_5	-0.92991	0.00416	0.00416	0.01139	0.01139
pp_P15_5_3_4	0.00226	0.00641	0.00642	0.00640	0.00641
pp_P13_4_2_4	0.00159	0.00957	0.00956	0.00955	0.00955
pp_P14_3_4_4	-0.26433	0.01159	0.01162	0.01512	0.01521
pp_P16_5_3_5	0.00173	0.01325	0.01330	0.01328	0.01328
pp_P17_5_4_5	0.00138	0.01339	0.01339	0.01337	0.01338
pp_P17_6_3_5	-0.00169	0.01652	0.01653	0.01655	0.01656
pp_P14_4_3_4	0.00149	0.01702	0.01701	0.01699	0.01699
pp_P8_2_1_2	0.00597	0.01916	0.01916	0.01905	0.01905
pp_P11_3_2_3	0.00328	0.02000	0.02002	0.01995	0.01995
pp_P12_4_2_3	0.00292	0.02272	0.02274	0.02267	0.02267
pp_P17_8_3_3	-0.46206	0.02571	0.02575	0.04121	0.04122
pp_P11_2_3_3	-0.24403	0.02624	0.02625	0.03355	0.03354
pp_P16_4_4_5	-0.00041	0.02729	0.02732	0.02733	0.02733
pp_P16_6_3_4	0.00218	0.02965	0.02967	0.02961	0.02961
pp_P16_3_5_5	-0.20463	0.03457	0.03458	0.04255	0.04246
pp_P17_5_3_6	0.00020	0.03475	0.03477	0.03479	0.03476
pp_P14_5_2_4	0.00158	0.03624	0.03625	0.03619	0.03619
pp_P16_6_2_5	0.00115	0.03772	0.03773	0.03770	0.03769
pp_P13_6_2_2	-0.42133	0.04090	0.04092	0.06273	0.06279
pp_P13_3_3_4	0.00100	0.04104	0.04106	0.04104	0.04102
pp_P15_3_4_5	0.00062	0.04210	0.04214	0.04207	0.04216
pp_P14_4_2_5	-0.04382	0.04241	0.04245	0.04435	0.04435
pp_P15_4_3_5	-0.00085	0.04269	0.04283	0.04287	0.04287
pp_P17_3_5_6	-0.16267	0.04895	0.04900	0.05770	0.05768
pp_P17_7_3_4	-0.00382	0.05285	0.05285	0.05305	0.05313
pp_P17_4_4_6	0.01238	0.05540	0.05548	0.05481	0.05480
pp_P13_2_4_4	-0.19236	0.05575	0.05682	0.06854	0.06891
pp_P12_3_2_4	0.00167	0.05945	0.05944	0.05935	0.05935
pp_P12_2_3_4	-0.04751	0.06423	0.06425	0.06736	0.06829
pp_P13_5_2_3	0.00280	0.06540	0.06545	0.06528	0.06527
pp_P9_3_1_2	0.00574	0.06584	0.06583	0.06546	0.06546
pp_P11_4_1_3	0.00260	0.06657	0.06661	0.06644	0.06644
pp_P8_1_2_2	-0.18909	0.06653	0.06667	0.08059	0.08059
pp_P10_2_2_3	0.00127	0.06787	0.06791	0.06783	0.06782

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
pp_P16_4_3_6	-0.00011	0.06866	0.06866	0.06868	0.06867
pp_P17_7_2_5	0.00049	0.06912	0.06915	0.06914	0.06912
pp_P14_2_4_5	-0.13759	0.07263	0.07268	0.08336	0.08377
pp_P16_3_4_6	0.02756	0.07491	0.07489	0.07287	0.07322
pp_P15_6_2_4	0.00115	0.07824	0.07823	0.07815	0.07815
pp_P15_2_5_5	1.43610	0.07897	0.07911	0.01296	0.09161
pp_P14_3_3_5	0.00115	0.08055	0.08058	0.08050	0.08049
pp_P9_2_1_3	0.01349	0.08565	0.08566	0.08451	0.08451
pp_P17_4_3_7	0.04834	0.09327	0.09343	0.08911	0.08902
pp_P13_3_2_5	0.01486	0.09671	0.09675	0.09532	0.09532

3.4 hp

3.4.1 Missing

Name	General	
	Δ_l	Δ_a
hp_P16_4_3_6	0.09422	0.09481

3.4.2 New

Name	Symmetric	
	Δ_l	Δ_a
hp_P14_4_2_5	0.07284	0.07279
hp_P14_7_2_2	0.07297	0.07302
hp_P9_4_1_1	0.07714	0.07716
hp_P13_2_4_4	0.08430	0.08470
hp_P12_2_3_4	0.08681	0.08679
hp_P14_2_4_5	0.09717	0.09723

3.4.3 Comparison

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
hp_P14_5_2_4	0.00261	0.00398	0.00398	0.00398	0.00397
hp_P12_4_2_3	0.00433	0.00403	0.00403	0.00401	0.00401
hp_P16_6_2_5	0.00141	0.00895	0.00896	0.00895	0.00895
hp_P17_6_3_5	-0.00263	0.00927	0.00930	0.00932	0.00932
hp_P16_6_3_4	0.00253	0.01122	0.01122	0.01120	0.01119
hp_P15_5_3_4	0.00220	0.01259	0.01259	0.01256	0.01256
hp_P17_5_4_5	-0.00239	0.02560	0.02561	0.02567	0.02567
hp_P17_8_3_3	-0.45542	0.02574	0.02576	0.04103	0.04095
hp_P9_3_1_2	0.00636	0.02730	0.02730	0.02713	0.02713
hp_P17_4_5_5	-0.25871	0.02810	0.02811	0.03649	0.03646
hp_P15_5_2_5	0.01179	0.03151	0.02584	0.04262	0.02554
hp_P11_4_1_3	0.00223	0.03244	0.03243	0.03237	0.03237
hp_P14_4_3_4	0.00119	0.03484	0.03484	0.03480	0.03480
hp_P16_5_3_5	0.00081	0.03695	0.03695	0.03696	0.03692
hp_P17_7_3_4	-0.00936	0.03710	0.03710	0.03746	0.03745
hp_P16_4_4_5	0.03123	0.03767	0.03770	0.03651	0.03662
hp_P10_3_1_3	0.00876	0.03785	0.03465	0.04731	0.03435
hp_P14_3_4_4	-0.25744	0.03968	0.03970	0.05140	0.05145
hp_P13_4_2_4	0.00239	0.04003	0.04004	0.03994	0.03994
hp_P13_5_2_3	0.00211	0.04009	0.04012	0.04004	0.04004
hp_P13_6_2_2	-0.41646	0.04093	0.04094	0.06252	0.06247
hp_P17_7_2_5	0.00037	0.04116	0.04119	0.04119	0.04117
hp_P15_6_2_4	0.00139	0.04510	0.04512	0.04506	0.04506
hp_P11_3_2_3	0.00265	0.04836	0.04840	0.04826	0.04827
hp_P13_3_3_4	0.01949	0.05367	0.05375	0.05273	0.05271
hp_P8_2_1_2	0.00795	0.05764	0.05766	0.05720	0.05720
hp_P16_3_5_5	-0.19159	0.05897	0.05896	0.07146	0.07159
hp_P11_2_3_3	-0.24567	0.05965	0.05974	0.07647	0.07647
hp_P15_3_4_5	-0.22689	0.05992	0.05992	0.07525	0.07527
hp_P17_5_3_6	0.00067	0.06191	0.06194	0.06192	0.06190
hp_P17_4_4_6	0.05337	0.06984	0.06983	0.06621	0.06658
hp_P17_3_5_6	-0.18091	0.07067	0.07082	0.08473	0.08503
hp_P15_4_3_5	0.00049	0.07086	0.07085	0.07083	0.07082
hp_P16_7_2_4	-0.00498	0.07843	0.07839	0.07882	0.07882
hp_P14_6_2_3	-0.01495	0.07995	0.07992	0.08115	0.08113

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
hp_P10_2_2_3	0.02180	0.08193	0.08197	0.08020	0.08020
hp_P12_5_1_3	0.00144	0.08248	0.08246	0.08236	0.08235
hp_P16_3_4_6	-0.04212	0.08969	0.08980	0.09355	0.09547
hp_P12_3_2_4	0.00235	0.09480	0.09488	0.09466	0.09466
hp_P14_3_3_5	0.05173	0.09762	0.09765	0.09270	0.09452

3.5 7p

3.5.1 New

Name	Symmetric	
	Δ_l	Δ_a
7p_P6_1_1_1	0.04071	0.04071
7p_P17_4_5_5	0.04586	0.04586
7p_P14_7_2_2	0.07302	0.07301
7p_P9_4_1_1	0.07712	0.07717
7p_P15_3_4_5	0.07891	0.07893
7p_P17_4_4_6	0.08034	0.08044
7p_P11_2_3_3	0.08480	0.08481
7p_P17_3_5_6	0.08726	0.08745
7p_P10_2_2_3	0.09525	0.09528

3.5.2 Comparison

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
7p_P16_6_3_4	-0.01209	0.00214	0.00214	0.00223	0.00217
7p_P9_3_1_2	0.00658	0.00282	0.00282	0.00280	0.00280
7p_P11_4_1_3	0.00165	0.00979	0.00980	0.00978	0.00978
7p_P16_6_2_5	0.18671	0.01211	0.00765	0.01716	0.00634
7p_P14_5_2_4	0.00160	0.01664	0.01665	0.01661	0.01662
7p_P15_4_4_4	-0.26451	0.02021	0.02022	0.02637	0.02789
7p_P12_4_2_3	0.00446	0.02120	0.02121	0.02111	0.02113
7p_P13_5_2_3	0.00347	0.02125	0.02126	0.02119	0.02119
7p_P17_7_2_5	-0.01221	0.02363	0.02369	0.02401	0.02398
7p_P12_3_3_3	-0.32778	0.02404	0.02407	0.03349	0.03351
7p_P17_7_3_4	-0.21894	0.02413	0.02413	0.03011	0.03006
7p_P15_6_2_4	-0.00194	0.02435	0.02436	0.02442	0.02441
7p_P17_6_3_5	-0.00974	0.02541	0.02540	0.02566	0.02567
7p_P15_5_3_4	-0.00006	0.02561	0.02565	0.02566	0.02565
7p_P17_8_3_3	-0.49686	0.02575	0.02574	0.04302	0.04276
7p_P9_2_2_2	-0.01611	0.02951	0.02952	0.03000	0.03000
7p_P17_5_4_5	-0.02192	0.03214	0.03213	0.03287	0.03284
7p_P13_6_2_2	-0.41516	0.04093	0.04094	0.06237	0.06243
7p_P14_4_3_4	-0.00015	0.04437	0.04438	0.04441	0.04439
7p_P16_4_4_5	-0.20203	0.04582	0.04584	0.05612	0.05697
7p_P16_5_3_5	-0.00219	0.05637	0.05646	0.05658	0.05658
7p_P16_7_2_4	-0.01452	0.05801	0.05803	0.05914	0.05888
7p_P15_5_2_5	-0.05206	0.06006	0.04031	0.07069	0.04247
7p_P14_3_4_4	-0.23943	0.06056	0.06057	0.07820	0.07704
7p_P13_4_2_4	-0.00089	0.06063	0.06065	0.06070	0.06070
7p_P12_5_1_3	0.00115	0.06227	0.06230	0.06220	0.06223
7p_P13_3_3_4	-0.19891	0.06286	0.06293	0.07694	0.07683
7p_P14_6_2_3	-0.00319	0.06321	0.06322	0.06342	0.06342
7p_P11_3_2_3	0.00185	0.06552	0.06558	0.06548	0.06546
7p_P10_3_1_3	0.07709	0.06874	0.05585	0.08815	0.05170
7p_P10_4_1_2	0.00260	0.07501	0.07501	0.07482	0.07483
7p_P16_3_5_5	-0.00120	0.07676	0.07688	0.07685	0.09602
7p_P17_8_2_4	-0.04164	0.08198	0.08204	0.08565	0.08553
7p_P17_5_3_6	0.00294	0.08344	0.08352	0.08329	0.08327
7p_P15_4_3_5	0.03217	0.08411	0.08419	0.08157	0.08152

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
7p_P8_2_1_2	0.00807	0.09187	0.09197	0.09123	0.09123
7p_P15_7_2_3	-0.01528	0.09361	0.09363	0.09507	0.09507
7p_P13_6_1_3	0.00137	0.09815	0.09820	0.09804	0.09807

3.6 8p

3.6.1 Missing

Name	General	
	Δ_l	Δ_a
8p_P17_5_3_6	0.08966	0.09515

3.6.2 New

Name	Symmetric	
	Δ_l	Δ_a
8p_P15_4_4_4	0.03571	0.03574
8p_P14_7_2_2	0.07303	0.07301
8p_P6_1_1_1	0.07328	0.07333
8p_P13_3_3_4	0.07523	0.07531
8p_P9_4_1_1	0.07718	0.07717
8p_P15_5_2_5	0.08666	0.04818
8p_P17_4_4_6	0.08865	0.08872
8p_P16_3_5_5	0.09032	0.09060
8p_P15_3_4_5	0.09362	0.09365
8p_P10_3_1_3	0.09937	0.06669
8p_P17_3_5_6	0.09972	0.09988

3.6.3 Comparison

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
8p_P11_4_1_3	0.15975	0.00686	0.00449	0.00857	0.00383
8p_P13_5_2_3	-0.00517	0.00771	0.00771	0.00775	0.00775
8p_P15_6_2_4	-0.00603	0.01089	0.01089	0.01096	0.01096
8p_P17_7_2_5	-0.06307	0.01167	0.01168	0.01244	0.01244
8p_P16_6_3_4	0.08154	0.01205	0.01207	0.01111	0.01133
8p_P17_7_3_4	-0.04547	0.01412	0.01414	0.01495	0.01480
8p_P9_3_1_2	0.00626	0.01497	0.01499	0.01490	0.01490
8p_P17_8_3_3	-0.57631	0.02575	0.02575	0.04772	0.04660
8p_P16_6_2_5	0.19715	0.02974	0.01645	0.04210	0.01350
8p_P14_5_2_4	0.00081	0.03155	0.03156	0.03153	0.03153
8p_P15_5_3_4	0.07469	0.03510	0.03510	0.03288	0.03257
8p_P12_4_2_3	0.00490	0.03577	0.03575	0.03560	0.03561
8p_P17_6_3_5	-0.00243	0.03624	0.03623	0.03633	0.03745
8p_P17_5_4_5	-0.02398	0.03782	0.03785	0.03874	0.03983
8p_P13_6_2_2	-0.41758	0.04088	0.04093	0.06246	0.06255
8p_P12_3_3_3	-0.31593	0.04268	0.04273	0.05869	0.05950
8p_P16_7_2_4	-0.03216	0.04425	0.04425	0.04601	0.04570
8p_P12_5_1_3	0.00100	0.04842	0.04843	0.04839	0.04838
8p_P14_4_3_4	0.03314	0.05029	0.05029	0.04865	0.04974
8p_P14_6_2_3	-0.00075	0.05029	0.05029	0.05038	0.05033
8p_P9_2_2_2	-0.00400	0.05225	0.05226	0.05257	0.05247
8p_P16_4_4_5	-0.26381	0.05808	0.05820	0.07757	0.07589
8p_P10_4_1_2	0.00427	0.05881	0.05883	0.05858	0.05858
8p_P17_4_5_5	-0.21465	0.05939	0.05944	0.07367	0.07420
8p_P17_8_2_4	-0.08271	0.06889	0.06890	0.07505	0.07484
8p_P16_5_3_5	0.00777	0.07068	0.07069	0.07015	0.07014
8p_P11_3_2_3	0.02266	0.07433	0.07436	0.07266	0.07298
8p_P13_4_2_4	0.00095	0.07616	0.07625	0.07625	0.07618
8p_P14_3_4_4	-0.22981	0.07653	0.07660	0.09668	0.09649
8p_P15_7_2_3	-0.01011	0.08197	0.08203	0.08293	0.08286
8p_P13_6_1_3	0.00056	0.08653	0.08651	0.08648	0.08648
8p_P15_4_3_5	0.01353	0.09270	0.09270	0.09145	0.09164

3.7 9p

3.7.1 New

Name	Symmetric	
	Δ_l	Δ_a
9p_P9_2_2_2	0.07025	0.07025
9p_P14_7_2_2	0.07293	0.07301
9p_P9_4_1_1	0.07714	0.07718
9p_P13_3_3_4	0.08802	0.08802
9p_P14_3_4_4	0.08925	0.08926
9p_P16_8_2_3	0.09363	0.09370
9p_P17_4_4_6	0.09524	0.09534
9p_P15_4_3_5	0.09958	0.09968
9p_P6_1_1_1	0.09985	0.09990

3.7.2 Comparison

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
9p_P15_6_2_4	-0.43889	0.00145	0.00145	0.00227	0.00227
9p_P13_5_2_3	-0.00453	0.00216	0.00216	0.00217	0.00217
9p_P17_7_2_5	-0.04626	0.00323	0.00323	0.00342	0.00338
9p_P13_4_3_3	-0.72388	0.00441	0.00441	0.00941	0.00941
9p_P17_7_3_4	-0.03909	0.00648	0.00648	0.00676	0.00674
9p_P16_5_4_4	-0.84581	0.01205	0.01207	0.02971	0.03516
9p_P16_6_3_4	0.01166	0.01923	0.01925	0.01901	0.02001
9p_P11_4_1_3	0.21135	0.02074	0.01244	0.02637	0.01006
9p_P17_8_3_3	-0.60303	0.02570	0.02574	0.04878	0.04797
9p_P9_3_1_2	0.00614	0.02853	0.02853	0.02836	0.02836
9p_P16_7_2_4	-0.08436	0.03471	0.03478	0.03883	0.03784
9p_P12_5_1_3	0.00054	0.03851	0.03851	0.03849	0.03850
9p_P14_6_2_3	-0.00844	0.04047	0.04050	0.04089	0.04084
9p_P13_6_2_2	-0.42006	0.04094	0.04092	0.06271	0.06270
9p_P15_5_3_4	0.03846	0.04097	0.04096	0.03942	0.03971
9p_P14_5_2_4	0.00012	0.04250	0.04249	0.04250	0.04257
9p_P17_5_4_5	-0.20477	0.04322	0.04326	0.05308	0.05470
9p_P17_6_3_5	-0.02090	0.04496	0.04491	0.04634	0.04586
9p_P16_6_2_5	0.17558	0.04578	0.02142	0.06264	0.01796
9p_P10_4_1_2	0.00381	0.04737	0.04736	0.04719	0.04719
9p_P15_4_4_4	-0.25377	0.04795	0.04803	0.06189	0.06317
9p_P12_4_2_3	0.00378	0.04892	0.04896	0.04891	0.04878
9p_P14_4_3_4	-0.01792	0.05647	0.05650	0.05749	0.06225
9p_P12_3_3_3	-0.35278	0.05751	0.05755	0.08215	0.08464
9p_P17_8_2_4	-0.13305	0.05950	0.05949	0.06833	0.06797
9p_P16_4_4_5	-0.23689	0.06926	0.06933	0.08787	0.09222
9p_P17_4_5_5	-0.23516	0.07004	0.07014	0.08870	0.08895
9p_P15_7_2_3	-0.02429	0.07280	0.07285	0.07489	0.07464
9p_P13_6_1_3	-0.00063	0.07784	0.07781	0.07789	0.07789
9p_P16_5_3_5	0.17802	0.07806	0.07810	0.06530	0.07950
9p_P11_3_2_3	0.08504	0.08033	0.08033	0.07378	0.07935
9p_P13_4_2_4	-0.02480	0.08657	0.08984	0.09208	0.09210
9p_P11_5_1_2	0.00368	0.09689	0.09699	0.09673	0.09663

3.8 10p

3.8.1 New

Name	Symmetric	
	Δ_l	Δ_a
10p_P13_4_3_3	0.01568	0.01569
10p_P16_5_4_4	0.02178	0.02182
10p_P14_7_2_2	0.07303	0.07303
10p_P9_4_1_1	0.07717	0.07716
10p_P16_4_4_5	0.07832	0.07831
10p_P17_4_5_5	0.07870	0.07879
10p_P9_2_2_2	0.08491	0.08492
10p_P11_3_2_3	0.08531	0.08533
10p_P16_8_2_3	0.08688	0.08688
10p_P13_3_3_4	0.09884	0.09888
10p_P14_3_4_4	0.09946	0.09956

3.8.2 Comparison

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
10p_P17_7_3_4	-0.62299	0.00054	0.00054	0.00106	0.00103
10p_P17_7_2_5	-0.00764	0.00448	0.00187	0.00451	0.00322
10p_P15_6_2_4	0.07068	0.00548	0.00548	0.00511	0.00541
10p_P13_5_2_3	0.07571	0.00952	0.00952	0.00883	0.00943
10p_P17_8_3_3	-0.59637	0.02575	0.02574	0.04833	0.04761
10p_P16_6_3_4	0.06810	0.02613	0.02615	0.02441	0.02592
10p_P16_7_2_4	-0.14332	0.02823	0.02829	0.03356	0.03266
10p_P12_5_1_3	0.00036	0.03122	0.03124	0.03123	0.03123
10p_P11_4_1_3	0.16670	0.03234	0.01752	0.03881	0.01482
10p_P14_6_2_3	-0.02503	0.03304	0.03306	0.03400	0.03390
10p_P10_4_1_2	0.00350	0.03877	0.03876	0.03863	0.03863
10p_P9_3_1_2	0.00577	0.03897	0.03897	0.03875	0.03875
10p_P13_6_2_2	-0.42098	0.04093	0.04094	0.06275	0.06282
10p_P15_5_3_4	-0.00487	0.04464	0.04463	0.04486	0.04501
10p_P17_5_4_5	-0.12276	0.04829	0.04830	0.05461	0.07187
10p_P14_5_2_4	0.02135	0.05027	0.05032	0.04921	0.05031
10p_P17_6_3_5	0.02191	0.05232	0.05234	0.05119	0.05303
10p_P17_8_2_4	-0.19695	0.05259	0.05258	0.06526	0.06407
10p_P15_4_4_4	-0.17185	0.05801	0.05800	0.06892	0.07720
10p_P12_4_2_3	0.00426	0.05887	0.05892	0.05862	0.05945
10p_P16_6_2_5	0.13897	0.06026	0.02397	0.05243	0.04963
10p_P14_4_3_4	-0.03170	0.06185	0.06182	0.06384	0.07064
10p_P15_7_2_3	-0.04263	0.06560	0.06559	0.06865	0.06845
10p_P12_3_3_3	-0.03253	0.06958	0.06962	0.07188	0.07210
10p_P13_6_1_3	0.00178	0.07131	0.07129	0.07118	0.07123
10p_P16_5_3_5	0.04498	0.08336	0.08338	0.07969	0.08218
10p_P11_5_1_2	0.00214	0.08880	0.08880	0.08861	0.08862

3.9 ta

3.9.1 Comparison

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
ta_P17_4_3_3_3	0.00132	0.03355	0.03356	0.03351	0.03353
ta_P15_2_3_3_3	0.00073	0.03772	0.03777	0.03774	0.03774
ta_P13_3_2_2_2	0.00178	0.05361	0.05362	0.05352	0.05352
ta_P17_3_3_4_3	0.01154	0.06384	0.06384	0.06311	0.06525
ta_P11_1_2_2_2	0.00172	0.06443	0.06451	0.06440	0.06440
ta_P17_2_4_3_4	0.00105	0.06549	0.06554	0.06545	0.06547
ta_P14_2_3_2_3	0.00076	0.07270	0.07266	0.07264	0.07264
ta_P14_1_3_3_3	0.04908	0.07861	0.08331	0.07484	0.08343
ta_P14_3_2_3_2	0.00023	0.08599	0.08605	0.08604	0.08603
ta_P17_3_3_3_4	-0.00088	0.09178	0.09179	0.09186	0.09190
ta_P17_1_4_4_4	-0.00841	0.06606	0.09376	0.06662	0.09599
ta_P14_4_2_2_2	0.00230	0.09631	0.09634	0.09611	0.09612
ta_P13_2_2_3_2	0.00083	0.09856	0.09863	0.09867	0.09855
ta_P16_2_3_4_3	0.00022	0.09881	0.09885	0.09879	0.09883
ta_P9_2_1_1_1	0.00490	0.09990	0.09993	0.09944	0.09944

3.10 sa

3.10.1 Comparison

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
sa_P14_4_2_2_2	0.00131	0.00731	0.00731	0.00730	0.00730
sa_P9_2_1_1_1	0.00256	0.02076	0.02078	0.02073	0.02073
sa_P13_3_2_2_2	0.00111	0.03980	0.03981	0.03977	0.03977
sa_P17_4_3_3_3	0.02614	0.04412	0.04419	0.04298	0.04492
sa_P15_5_2_2_2	0.00124	0.04704	0.04702	0.04698	0.04697
sa_P10_3_1_1_1	0.00283	0.06432	0.06430	0.06414	0.06413
sa_P16_4_3_2_3	-0.00042	0.06961	0.06965	0.06965	0.06968
sa_P16_3_3_3_3	0.00028	0.07904	0.07901	0.07905	0.07899
sa_P15_4_2_3_2	0.01152	0.08220	0.08220	0.08126	0.08224
sa_P16_6_2_2_2	0.00096	0.08559	0.08560	0.08553	0.08552
sa_P16_5_2_3_2	0.00802	0.08886	0.08890	0.08815	0.08916
sa_P15_3_3_2_3	0.00075	0.08977	0.08986	0.08983	0.08979
sa_P17_5_3_2_3	0.00087	0.09089	0.09093	0.09081	0.09098
sa_P12_2_2_2_2	0.00152	0.09494	0.09503	0.09490	0.09489
sa_P17_5_2_3_3	0.00018	0.09967	0.09968	0.09965	0.09976

3.11 pa

3.11.1 Comparison

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
pa_P16_6_2_2_2	0.00084	0.04227	0.04228	0.04224	0.04224
pa_P14_4_2_2_2	0.00119	0.04427	0.04426	0.04424	0.04421
pa_P17_5_3_2_3	0.03209	0.07325	0.07335	0.07094	0.07364
pa_P17_7_2_2_2	0.00735	0.07708	0.07708	0.07652	0.07731
pa_P11_4_1_1_1	0.00157	0.08178	0.08179	0.08166	0.08166
pa_P16_5_2_3_2	0.04920	0.08442	0.08447	0.08037	0.08531
pa_P17_6_2_3_2	0.02835	0.08517	0.08516	0.08279	0.08632
pa_P9_2_1_1_1	0.00173	0.08612	0.08622	0.08607	0.08607
pa_P17_4_3_3_3	0.03740	0.08739	0.08739	0.08418	0.08941
pa_P16_4_3_2_3	0.00039	0.08973	0.08975	0.08974	0.08971
pa_P13_3_2_2_2	0.00120	0.09316	0.09318	0.09307	0.09307

3.12 ha

3.12.1 New

Name	Symmetric	
	Δ_l	Δ_a
ha_P16_5_2_3_2	0.07382	0.09893

3.12.2 Comparison

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
ha_P16_6_2_2_2	0.00039	0.01074	0.01074	0.01074	0.01074
ha_P15_5_2_2_2	0.00354	0.03371	0.03369	0.03359	0.03372
ha_P11_4_1_1_1	0.00133	0.04185	0.04182	0.04179	0.04178
ha_P10_3_1_1_1	0.00027	0.04358	0.04359	0.04357	0.04358
ha_P17_7_2_2_2	0.02877	0.04975	0.04976	0.04834	0.05063
ha_P14_4_2_2_2	0.01296	0.07664	0.07662	0.07565	0.07727
ha_P17_6_2_3_2	0.09481	0.08101	0.08101	0.07368	0.08518
ha_P17_5_3_2_3	0.00273	0.08158	0.08165	0.08136	0.08171
ha_P16_5_2_2_3	-0.00070	0.09860	0.09861	0.09869	0.09868

3.13 7a

3.13.1 New

Name	Symmetric	
	Δ_l	Δ_a
7a_P14_4_2_2_2	0.09740	0.09742

3.13.2 Comparison

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
7a_P16_6_2_2_2	0.02617	0.01286	0.01288	0.01253	0.01317
7a_P11_4_1_1_1	0.00151	0.01309	0.01309	0.01307	0.01307
7a_P17_7_2_2_2	0.05003	0.02993	0.02992	0.02847	0.03111
7a_P15_5_2_2_2	0.04382	0.05936	0.05935	0.05681	0.06047
7a_P10_3_1_1_1	-0.00684	0.06247	0.07431	0.07444	0.07482
7a_P12_5_1_1_1	0.00186	0.08191	0.08191	0.08196	0.08176
7a_P17_5_3_2_3	-0.00010	0.08999	0.08999	0.09008	0.09000
7a_P17_6_2_2_3	0.00295	0.09843	0.09847	0.09814	0.09849
7a_P17_6_2_3_2	0.01819	0.04211	0.09879	0.08212	0.09701

3.14 8a

3.14.1 New

Name	Symmetric	
	Δ_l	Δ_a
8a_P17_6_2_3_2	0.06787	0.09899

3.14.2 Comparison

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
8a_P11_4_1_1_1	0.00138	0.00800	0.00800	0.00800	0.00799
8a_P17_7_2_2_2	0.00202	0.01526	0.01526	0.01523	0.01653
8a_P16_6_2_2_2	-0.00926	0.03083	0.03085	0.03112	0.03183
8a_P12_5_1_1_1	0.00688	0.06485	0.06492	0.06441	0.06532
8a_P15_5_2_2_2	-0.09217	0.05795	0.07653	0.08059	0.08392
8a_P17_6_2_2_3	-0.00340	0.09302	0.09299	0.09334	0.09334
8a_P10_3_1_1_1	-0.03753	0.08800	0.09425	0.09467	0.09785
8a_P17_5_3_2_3	0.00958	0.09883	0.09900	0.09789	0.09917

3.15 9a

3.15.1 New

Name	Symmetric	
	Δ_l	Δ_a
9a_P15_5_2_2_2	0.05639	0.09697

3.15.2 Comparison

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
9a_P17_7_2_2_2	-0.03914	0.00433	0.00433	0.00450	0.00459
9a_P11_4_1_1_1	0.00100	0.02344	0.02345	0.02342	0.02343
9a_P16_6_2_2_2	-0.03111	0.04425	0.04426	0.04565	0.04626
9a_P12_5_1_1_1	0.00140	0.05229	0.05231	0.05222	0.05234
9a_P17_6_2_2_3	0.00386	0.09305	0.09304	0.09269	0.09351

3.16 10a

3.16.1 Comparison

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
10a_P17_7_2_2_2	0.04974	0.00386	0.00386	0.00367	0.00370
10a_P11_4_1_1_1	0.00413	0.03467	0.03468	0.03453	0.03482
10a_P12_5_1_1_1	0.00297	0.04283	0.04282	0.04270	0.04294
10a_P16_6_2_2_2	-0.03027	0.05385	0.05386	0.05550	0.05646
10a_P13_6_1_1_1	0.00931	0.09223	0.09225	0.09138	0.09406
10a_P17_6_2_2_3	-0.01109	0.09395	0.09403	0.09521	0.09508

3.17 Pte

3.17.1 Missing

Name	General	
	Δ_l	Δ_a
Pte_P13_3_3_4	0.08042	0.08042

3.17.2 New

Name	Symmetric	
	Δ_l	Δ_a
Pte_P17_4_5_5	0.05163	0.05168
Pte_P16_5_4_4	0.05799	0.05800
Pte_P13_4_3_3	0.08040	0.08047
Pte_P17_5_4_5	0.08117	0.08123

3.17.3 Comparison

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
Pte_P14_3_4_4	0.00029	0.07319	0.07318	0.07317	0.07317
Pte_P16_4_4_5	0.29992	0.07846	0.07848	0.05801	0.05801

3.18 Poc2

3.18.1 Missing

Name	General	
	Δ_l	Δ_a
Poc2_P12_1_3_1_3	0.09445	0.09966

3.18.2 Comparison

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
Poc2_P14_2_3_2_3	0.00175	0.00000	0.02778	0.01016	0.02773
Poc2_P16_2_4_2_4	0.00105	0.00002	0.04762	0.00092	0.04757
Poc2_P10_1_2_1_2	0.00594	0.00003	0.06250	0.05736	0.06213

3.19 Pic

3.19.1 Missing

Name	General	
	Δ_l	Δ_a
Pic_P12_2_1_2_1_1	0.06157	0.06157
Pic_P14_1_3_1_2_2	0.09164	0.09163
Pic_P16_2_3_2_2_2	0.09709	0.09709

3.19.2 Comparison

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
Pic_P17_3_2_3_2_2	0.70261	0.05981	0.05985	0.02872	0.02873
Pic_P13_1_2_1_2_2	0.15389	0.06545	0.06049	0.05610	0.05611
Pic_P16_2_2_3_2_2	0.16166	0.08022	0.08024	0.06822	0.06834
Pic_P14_1_2_2_2_2	0.14962	0.08900	0.08905	0.07666	0.07665
Pic_P16_1_3_1_3_3	0.04556	0.09204	0.09204	0.08794	0.08804
Pic_P17_1_4_1_3_3	0.92561	0.03965	0.09333	0.01456	0.09250
Pic_P17_1_3_3_2_3	0.00551	0.07692	0.09333	0.09277	0.09282
Pic_P17_1_3_2_3_3	-0.01036	0.09437	0.09435	0.09535	0.09534
Pic_P16_1_3_2_2_3	0.00271	0.09504	0.09502	0.09478	0.09478

3.20 Att

3.20.1 Missing

Name	General	
	Δ_l	Δ_a
Att_P11_2_1_5	0.07479	0.07479
Att_P16_4_2_7	0.09551	0.09552

3.20.2 New

Name	Symmetric	
	Δ_l	Δ_a
Att_P16_2_3_8	0.00469	0.00469
Att_P12_1_2_6	0.03381	0.03385
Att_P14_2_2_7	0.05219	0.05219
Att_P14_1_3_7	0.05996	0.06002
Att_P16_1_4_8	0.07917	0.07921
Att_P10_1_1_5	0.08850	0.08849

3.20.3 Comparison

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
Att_P16_2_5_6	0.00006	0.00055	0.00055	0.00055	0.00055
Att_P16_2_4_7	-0.04079	0.00085	0.00085	0.00089	0.00093
Att_P11_1_3_4	0.00199	0.00509	0.00509	0.00508	0.00508
Att_P15_2_3_7	-0.01576	0.00709	0.00709	0.00721	0.00720
Att_P17_2_5_7	0.00779	0.00788	0.00788	0.00782	0.00786
Att_P17_2_4_8	-0.00685	0.01020	0.01021	0.01029	0.01028
Att_P15_2_4_6	0.00104	0.01075	0.01076	0.01074	0.01075
Att_P11_1_2_5	0.00013	0.01176	0.01176	0.01176	0.01176
Att_P10_1_2_4	-0.00011	0.01329	0.01330	0.01330	0.01330
Att_P14_2_3_6	-0.00028	0.02173	0.02175	0.02175	0.02176
Att_P12_1_3_5	-0.00114	0.02309	0.02314	0.02316	0.02317
Att_P14_2_4_5	0.00179	0.02367	0.02368	0.02364	0.02364
Att_P13_1_4_5	-0.00408	0.02394	0.02399	0.02404	0.02414
Att_P14_1_5_5	-0.00260	0.00213	0.02778	0.02784	0.02785
Att_P11_2_3_3	0.10530	0.00539	0.02780	0.02500	0.02502
Att_P14_3_4_4	-0.08316	0.02794	0.02796	0.03052	0.03039
Att_P17_4_5_5	-0.11016	0.03006	0.03008	0.03356	0.03359
Att_P17_3_5_6	0.00405	0.03174	0.03174	0.03161	0.03164
Att_P17_3_3_8	-0.00358	0.03174	0.03175	0.03195	0.03186
Att_P13_2_2_6	0.00050	0.03346	0.03352	0.03351	0.03350
Att_P17_3_4_7	0.00026	0.03701	0.03700	0.03700	0.03700
Att_P15_1_5_6	1.08225	0.03953	0.03953	0.01177	0.04003
Att_P13_1_3_6	-0.00020	0.04078	0.04081	0.04082	0.04082
Att_P13_2_3_5	0.00016	0.04211	0.04212	0.04212	0.04211
Att_P14_1_4_6	-0.00788	0.04402	0.04404	0.04437	0.04444
Att_P9_1_2_3	0.00253	0.04661	0.04660	0.04649	0.04650
Att_P16_3_3_7	-0.00127	0.04752	0.04750	0.04758	0.04762
Att_P16_1_6_6	1.72246	0.00201	0.04762	0.00015	0.04782
Att_P9_1_1_4	0.39975	0.05412	0.05409	0.03609	0.03608
Att_P17_1_6_7	1.93919	0.05571	0.05571	0.00086	0.05724
Att_P15_3_4_5	-0.02971	0.05590	0.05593	0.05760	0.05762
Att_P16_1_5_7	-0.03891	0.05652	0.05662	0.05876	0.06006
Att_P16_3_4_6	-0.00034	0.05712	0.05714	0.05716	0.05716
Att_P12_2_2_5	0.00014	0.05800	0.05805	0.05804	0.05804
Att_P15_1_4_7	-0.00142	0.05882	0.05892	0.05911	0.05900

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
Att_P15_4_4_4	-0.06015	0.06660	0.06667	0.07087	0.07080
Att_P15_3_3_6	0.00028	0.06698	0.06704	0.06698	0.06702
Att_P12_2_3_4	0.00283	0.06915	0.06919	0.06895	0.06901
Att_P17_1_5_8	-0.01296	0.07062	0.07065	0.07154	0.07221
Att_P17_4_2_8	-0.00165	0.07260	0.07260	0.07297	0.07272
Att_P12_3_3_3	-0.02523	0.07817	0.07822	0.08017	0.08290
Att_P8_1_1_3	0.00090	0.08031	0.08036	0.08029	0.08029
Att_P14_3_2_6	-0.00063	0.08229	0.08228	0.08234	0.08234
Att_P17_4_3_7	0.00183	0.08212	0.08234	0.08228	0.08219
Att_P15_3_2_7	0.43260	0.09008	0.09008	0.05804	0.05804
Att_P11_2_2_4	0.00057	0.09015	0.09015	0.09010	0.09011
Att_P16_4_4_5	-0.06416	0.09115	0.09119	0.09725	0.09724
Att_P9_2_2_2	0.00208	0.09544	0.09552	0.09643	0.09532

3.21 Atc

3.21.1 Missing

Name	General	
	Δ_l	Δ_a
Atc_P17_4_2_8	0.08426	0.08376

3.21.2 New

Name	Symmetric	
	Δ_l	Δ_a
Atc_P16_2_3_8	0.00839	0.00840
Atc_P12_1_2_6	0.01293	0.01294
Atc_P14_1_3_7	0.03957	0.03965
Atc_P15_1_5_6	0.04154	0.04155
Atc_P14_2_2_7	0.04668	0.04674
Atc_P17_1_6_7	0.05620	0.05626
Atc_P16_1_4_8	0.05847	0.05857
Atc_P17_4_3_7	0.08263	0.08265
Atc_P10_1_1_5	0.08349	0.08356
Atc_P11_2_1_5	0.08640	0.08646
Atc_P17_4_4_6	0.09016	0.09028
Atc_P11_2_2_4	0.09136	0.09136

3.21.3 Comparison

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
Atc_P17_2_4_8	-0.77078	0.00057	0.00060	0.00129	0.00152
Atc_P17_2_5_7	-0.02435	0.00130	0.00130	0.00133	0.00136
Atc_P15_2_5_5	-1.51559	0.00031	0.00322	0.02097	0.02334
Atc_P10_1_3_3	-0.00422	0.00046	0.00511	0.00513	0.00513
Atc_P11_1_2_5	-0.00495	0.00698	0.00699	0.00702	0.00702
Atc_P11_1_3_4	-0.13328	0.00828	0.00829	0.00950	0.00947
Atc_P16_2_4_7	-0.02387	0.00957	0.00958	0.00980	0.00981
Atc_P16_2_5_6	1.96424	0.00998	0.00998	0.00009	0.01488
Atc_P12_1_3_5	-0.00297	0.01002	0.01002	0.01005	0.01005
Atc_P15_2_3_7	-0.01155	0.01884	0.01906	0.01923	0.01928
Atc_P15_2_4_6	-0.00602	0.01948	0.01951	0.01964	0.01963
Atc_P13_1_4_5	-0.00416	0.02218	0.02219	0.02228	0.02228
Atc_P13_1_3_6	-0.00267	0.02599	0.02600	0.02606	0.02609
Atc_P14_1_5_5	-0.03370	0.00212	0.02778	0.02873	0.02873
Atc_P13_2_4_4	-0.25025	0.02807	0.02809	0.03620	0.03612
Atc_P10_1_2_4	-0.00475	0.03116	0.03116	0.03131	0.03131
Atc_P14_2_3_6	0.00348	0.03126	0.03128	0.03115	0.03150
Atc_P16_3_5_5	-0.11149	0.03461	0.03465	0.03875	0.03874
Atc_P14_2_4_5	-0.12855	0.03605	0.03604	0.04100	0.04417
Atc_P14_1_4_6	-0.00602	0.03659	0.03664	0.03685	0.03686
Atc_P17_3_3_8	0.10594	0.03794	0.03794	0.03412	0.04466
Atc_P17_3_4_7	-0.07293	0.04012	0.04018	0.04316	0.05098
Atc_P13_2_2_6	-0.00535	0.04457	0.04458	0.04481	0.04485
Atc_P13_2_3_5	-0.00473	0.04601	0.04603	0.04623	0.04636
Atc_P16_1_6_6	-0.01957	0.00294	0.04762	0.04826	0.04856
Atc_P15_1_4_7	-0.00658	0.04840	0.04844	0.04877	0.04876
Atc_P16_3_3_7	-0.02479	0.05139	0.05149	0.05268	0.05317
Atc_P16_1_5_7	0.03313	0.05481	0.05481	0.05302	0.05545
Atc_P16_3_4_6	-0.13326	0.05554	0.05549	0.06347	0.06396
Atc_P17_3_5_6	0.14779	0.03715	0.05593	0.04745	0.04823
Atc_P9_1_1_4	-0.10600	0.05877	0.05881	0.06535	0.07016
Atc_P9_1_2_3	-0.18377	0.05966	0.05967	0.07173	0.07226
Atc_P12_2_2_5	-0.01741	0.06343	0.06346	0.06461	0.06457
Atc_P17_1_5_8	0.01001	0.06426	0.06440	0.06362	0.06478
Atc_P17_4_5_5	-0.08960	0.06448	0.06461	0.07055	0.07067

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
Atc_P14_3_4_4	-0.16628	0.06752	0.06767	0.08032	0.07994
Atc_P11_2_3_3	-0.08673	0.06818	0.06819	0.07527	0.07437
Atc_P15_3_3_6	-0.02020	0.06847	0.06848	0.06987	0.07017
Atc_P8_1_2_2	-0.09061	0.03754	0.07212	0.07456	0.07896
Atc_P12_2_3_4	0.08793	0.07881	0.07881	0.07217	0.08468
Atc_P15_3_2_7	0.23183	0.08184	0.08207	0.06724	0.06502
Atc_P14_3_2_6	-0.01452	0.08622	0.08626	0.08769	0.08752
Atc_P14_3_3_5	-0.05767	0.09096	0.09096	0.09636	0.09673

3.22 Ato

3.22.1 New

Name	Symmetric	
	Δ_l	Δ_a
Ato_P14_2_2_7	0.05073	0.05080
Ato_P16_3_2_8	0.05528	0.01565
Ato_P13_4_3_3	0.07883	0.07891
Ato_P17_6_4_4	0.09074	0.09074

3.22.2 Comparison

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
Ato_P15_3_4_5	-0.00019	0.00110	0.00110	0.00110	0.00110
Ato_P15_3_3_6	0.00141	0.00271	0.00271	0.00272	0.00271
Ato_P11_2_2_4	0.00079	0.00372	0.00372	0.00372	0.00372
Ato_P11_2_1_5	0.01745	0.00621	0.00253	0.00695	0.00249
Ato_P15_3_2_7	-0.00176	0.00628	0.00629	0.00629	0.00642
Ato_P14_3_2_6	-0.00997	0.01238	0.01240	0.01250	0.01257
Ato_P17_4_2_8	0.00450	0.01451	0.01452	0.01499	0.01445
Ato_P16_3_4_6	0.00140	0.01540	0.01541	0.01540	0.01539
Ato_P13_2_4_4	-0.01363	0.01550	0.01564	0.01580	0.01585
Ato_P14_3_3_5	0.00051	0.01620	0.01622	0.01621	0.01621
Ato_P16_3_3_7	-0.00531	0.01708	0.01713	0.01717	0.01743
Ato_P12_2_3_4	0.00192	0.01801	0.01802	0.01800	0.01799
Ato_P17_4_3_7	-0.00284	0.01915	0.01916	0.01922	0.01921
Ato_P17_3_5_6	-0.01972	0.02009	0.02010	0.02050	0.02050
Ato_P12_2_2_5	-0.00011	0.02121	0.02120	0.02121	0.02121
Ato_P17_4_4_6	-0.00226	0.02221	0.02223	0.02227	0.02228
Ato_P15_4_4_4	-0.02903	0.02413	0.02414	0.02484	0.02635
Ato_P7_1_1_2	0.00348	0.02633	0.02634	0.02625	0.02625
Ato_P17_3_4_7	-0.00231	0.02642	0.02643	0.02648	0.02649
Ato_P17_3_3_8	0.07307	0.02794	0.02795	0.02597	0.02912
Ato_P12_3_3_3	-0.01399	0.02842	0.02845	0.02882	0.03004
Ato_P8_1_1_3	0.00177	0.02912	0.02911	0.02907	0.02907
Ato_P10_2_1_4	0.00051	0.03095	0.03096	0.03094	0.03094
Ato_P16_4_2_7	0.01895	0.03276	0.03279	0.03389	0.03217
Ato_P9_2_2_2	-0.21410	0.03490	0.03493	0.04327	0.04543
Ato_P13_2_3_5	-0.00020	0.03630	0.03631	0.03633	0.03632
Ato_P13_3_2_5	0.00023	0.03729	0.03726	0.03728	0.03728
Ato_P16_4_3_6	-0.00040	0.03773	0.03773	0.03775	0.03775
Ato_P13_2_2_6	-0.00233	0.03870	0.03870	0.03884	0.03879
Ato_P14_2_4_5	0.00154	0.03899	0.03903	0.03896	0.03897
Ato_P15_2_5_5	-0.02109	0.03879	0.03930	0.04016	0.04014
Ato_P10_2_2_3	0.00120	0.03930	0.03932	0.03927	0.03927
Ato_P16_4_4_5	0.00136	0.04275	0.04283	0.04276	0.04277
Ato_P13_3_3_4	0.00130	0.04413	0.04412	0.04407	0.04407
Ato_P6_1_1_1	-0.09985	0.04665	0.04666	0.05155	0.05162

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
Ato_P16_2_5_6	-0.01847	0.04897	0.04903	0.04995	0.04994
Ato_P14_2_3_6	-0.00644	0.04916	0.04921	0.04948	0.04953
Ato_P15_2_4_6	0.00121	0.05543	0.05543	0.05536	0.05537
Ato_P15_4_2_6	0.00057	0.05605	0.05601	0.05602	0.05603
Ato_P17_2_6_6	0.50472	0.05643	0.05644	0.03369	0.05754
Ato_P9_1_2_3	0.00413	0.05648	0.05648	0.05625	0.05625
Ato_P15_2_3_7	-0.00446	0.05799	0.05801	0.05825	0.05874
Ato_P16_5_4_4	-0.05905	0.05924	0.05934	0.06284	0.06296
Ato_P12_3_1_5	-0.00018	0.06017	0.06019	0.06020	0.06020
Ato_P10_1_3_3	-0.01886	0.01235	0.06250	0.06368	0.06369
Ato_P17_2_5_7	-0.00110	0.06276	0.06280	0.06336	0.06287
Ato_P15_4_3_5	-0.00022	0.06263	0.06287	0.06289	0.06288
Ato_P16_2_4_7	0.00499	0.06321	0.06328	0.06290	0.06318
Ato_P17_5_2_7	-0.00098	0.06752	0.06753	0.06761	0.06760
Ato_P9_1_1_4	0.00083	0.06853	0.06864	0.06858	0.06858
Ato_P12_3_2_4	-0.00117	0.06982	0.06993	0.07000	0.07001
Ato_P17_2_4_8	0.33678	0.07258	0.07269	0.05166	0.07376
Ato_P17_5_3_6	-0.00545	0.07347	0.07346	0.07387	0.07386
Ato_P9_2_1_3	0.00046	0.07889	0.07891	0.07887	0.07887
Ato_P11_1_3_4	-0.01237	0.08500	0.08501	0.08606	0.08607
Ato_P14_4_2_5	-0.00275	0.08516	0.08525	0.08549	0.08548
Ato_P14_4_1_6	0.24388	0.06295	0.08611	0.04927	0.09357
Ato_P10_1_2_4	-0.00044	0.08607	0.08616	0.08620	0.08620
Ato_P17_5_4_5	-0.00390	0.08664	0.08668	0.08698	0.08710
Ato_P16_5_2_6	-0.00461	0.09415	0.09430	0.09475	0.09474

3.23 Atd

3.23.1 New

Name	Symmetric	
	Δ_l	Δ_a
Atd_P12_1_2_6	0.00433	0.00433
Atd_P16_2_3_8	0.01345	0.01352
Atd_P14_1_3_7	0.03181	0.03187
Atd_P14_2_2_7	0.03498	0.03500
Atd_P16_1_6_6	0.00292	0.04762
Atd_P15_3_3_6	0.06773	0.06782
Atd_P17_4_5_5	0.07656	0.07656
Atd_P16_1_4_8	0.08039	0.08056
Atd_P10_1_1_5	0.08162	0.08159
Atd_P17_4_3_7	0.08244	0.08252
Atd_P16_3_2_8	0.09821	0.09821
Atd_P8_1_2_2	0.04650	0.09839

3.23.2 Comparison

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
Atd_P17_2_6_6	-1.96583	0.00006	0.00020	0.02306	0.02332
Atd_P12_1_3_5	-0.03669	0.00345	0.00346	0.00358	0.00359
Atd_P17_2_4_8	-1.27665	0.00516	0.00518	0.02339	0.02424
Atd_P17_2_5_7	-1.42566	0.00536	0.00539	0.03242	0.03215
Atd_P16_2_5_6	-0.60152	0.01382	0.01383	0.02570	0.02623
Atd_P16_2_4_7	-0.68883	0.01385	0.01392	0.02841	0.02980
Atd_P11_1_2_5	1.98635	0.01460	0.01468	0.00005	0.01493
Atd_P11_1_3_4	0.05764	0.01512	0.01516	0.01427	0.01538
Atd_P13_1_4_5	1.98904	0.01820	0.01820	0.00005	0.01868
Atd_P15_2_5_5	-0.59325	0.01855	0.01855	0.03419	0.03613
Atd_P13_1_3_6	-0.00885	0.01889	0.01890	0.01906	0.01907
Atd_P15_2_3_7	-0.14759	0.02343	0.02371	0.02716	0.03586
Atd_P15_2_4_6	-0.22457	0.02370	0.02395	0.02969	0.03223
Atd_P14_1_5_5	-0.03161	0.00213	0.02778	0.02757	0.02867
Atd_P10_1_3_3	-0.02458	0.00567	0.02974	0.02491	0.03048
Atd_P14_1_4_6	0.29454	0.03115	0.03116	0.02315	0.03161
Atd_P14_2_4_5	-0.26399	0.03531	0.03533	0.04605	0.04880
Atd_P14_2_3_6	0.04320	0.03551	0.03558	0.03401	0.03738
Atd_P10_1_2_4	0.08648	0.03820	0.03825	0.03503	0.03861
Atd_P17_3_3_8	-0.44467	0.03922	0.03922	0.06164	0.07179
Atd_P17_3_4_7	-0.49996	0.04002	0.04001	0.06669	0.07003
Atd_P15_1_5_6	0.19354	0.04086	0.04091	0.03365	0.04193
Atd_P15_1_4_7	0.34690	0.04198	0.04212	0.02957	0.04265
Atd_P13_2_4_4	-0.06503	0.04383	0.04385	0.04678	0.04700
Atd_P17_3_5_6	-0.33440	0.04388	0.04400	0.06150	0.06297
Atd_P16_3_5_5	-0.28790	0.04655	0.04661	0.06220	0.06323
Atd_P13_2_2_6	-0.00796	0.04907	0.04924	0.04946	0.04968
Atd_P13_2_3_5	0.03098	0.04954	0.04958	0.04803	0.05026
Atd_P16_1_5_7	0.24509	0.05072	0.05081	0.03965	0.05141
Atd_P16_3_3_7	-0.17823	0.05195	0.05197	0.06212	0.06382
Atd_P16_3_4_6	-0.11725	0.05282	0.05299	0.05951	0.05959
Atd_P17_1_6_7	0.05445	0.05717	0.05718	0.05414	0.05845
Atd_P17_1_5_8	0.02919	0.05897	0.05908	0.05727	0.05946
Atd_P12_2_2_5	-0.01048	0.06614	0.06633	0.06710	0.06703
Atd_P9_1_1_4	0.12351	0.06719	0.06731	0.05937	0.06815

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
Atd_P9_1_2_3	0.05266	0.06812	0.06814	0.06462	0.06880
Atd_P12_2_3_4	0.01000	0.06814	0.06816	0.06746	0.06991
Atd_P15_3_4_5	-0.10843	0.07270	0.07270	0.08104	0.08414
Atd_P15_3_2_7	0.26139	0.08062	0.08069	0.06198	0.08318
Atd_P14_3_4_4	-0.12785	0.08123	0.08131	0.09233	0.09443
Atd_P11_2_3_3	-0.07757	0.08435	0.08434	0.09116	0.09203
Atd_P14_3_2_6	-0.04066	0.08734	0.08745	0.09341	0.09108
Atd_P14_3_3_5	-0.07275	0.08847	0.08847	0.09515	0.09520
Atd_P11_2_1_5	-0.00907	0.09024	0.09026	0.09111	0.09108
Atd_P11_2_2_4	-0.00850	0.09187	0.09187	0.09265	0.09636

3.24 Ati

3.24.1 New

Name	Symmetric	
	Δ_l	Δ_a
Ati_P17_4_3_7	0.01279	0.01280
Ati_P16_3_4_6	0.04732	0.04740
Ati_P16_5_3_5	0.05919	0.05925
Ati_P14_2_4_5	0.07405	0.07397
Ati_P17_6_4_4	0.07454	0.07455
Ati_P14_2_2_7	0.08414	0.08112
Ati_P15_5_2_5	0.08567	0.08567
Ati_P8_2_1_2	0.09251	0.09255
Ati_P17_6_3_5	0.09300	0.09314
Ati_P16_2_3_8	0.09890	0.09900

3.24.2 Comparison

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
Ati_P16_4_2_7	-0.48944	0.00042	0.00042	0.00070	0.00075
Ati_P13_3_3_4	-0.02148	0.00184	0.00184	0.00188	0.00190
Ati_P16_4_3_6	-0.02358	0.00189	0.00189	0.00194	0.00194
Ati_P16_4_4_5	-0.01865	0.00270	0.00270	0.00275	0.00275
Ati_P13_3_2_5	-0.01213	0.00289	0.00290	0.00293	0.00303
Ati_P17_4_5_5	-0.49566	0.00413	0.00414	0.00686	0.00686
Ati_P15_4_4_4	0.18120	0.00150	0.01036	0.00864	0.00864
Ati_P10_2_2_3	0.00105	0.01141	0.01141	0.01140	0.01140
Ati_P14_3_4_4	-0.00204	0.01158	0.01160	0.01162	0.01162
Ati_P17_4_4_6	-0.02930	0.01239	0.01241	0.01276	0.01279
Ati_P12_3_3_3	0.22350	0.00249	0.01254	0.01002	0.01002
Ati_P10_2_1_4	-0.00148	0.01315	0.01315	0.01317	0.01317
Ati_P9_2_2_2	0.20493	0.00475	0.01556	0.01267	0.01267
Ati_P6_1_1_1	0.21603	0.01140	0.01892	0.01440	0.01523
Ati_P15_4_2_6	-0.00075	0.01941	0.01940	0.01942	0.01942
Ati_P12_3_1_5	-0.01710	0.02111	0.02116	0.02268	0.02152
Ati_P15_4_3_5	-0.00085	0.02132	0.02134	0.02136	0.02136
Ati_P14_3_3_5	-0.00029	0.02206	0.02207	0.02208	0.02208
Ati_P14_3_2_6	-0.02056	0.02267	0.02266	0.02314	0.02351
Ati_P12_3_2_4	-0.00442	0.02462	0.02461	0.02473	0.02474
Ati_P11_2_3_3	-0.02151	0.02624	0.02624	0.02684	0.02681
Ati_P9_2_1_3	0.00022	0.02827	0.02827	0.02826	0.02826
Ati_P17_5_2_7	-0.01251	0.03366	0.03371	0.03419	0.03413
Ati_P16_3_5_5	-0.02517	0.03448	0.03459	0.03548	0.03547
Ati_P17_5_3_6	-0.01244	0.03600	0.03601	0.03649	0.03646
Ati_P15_3_3_6	-0.00162	0.03639	0.03640	0.03645	0.03646
Ati_P15_3_4_5	0.00204	0.03642	0.03643	0.03636	0.03636
Ati_P15_3_2_7	0.05687	0.03672	0.03676	0.03469	0.03952
Ati_P7_1_1_2	0.00246	0.03739	0.03739	0.03731	0.03730
Ati_P17_4_2_8	0.02609	0.03836	0.00911	0.04580	0.00888
Ati_P11_2_2_4	-0.00027	0.03981	0.03981	0.03982	0.03982
Ati_P17_5_4_5	-0.01050	0.04012	0.04012	0.04055	0.04054
Ati_P16_5_4_4	-0.05992	0.04318	0.04322	0.04589	0.04589
Ati_P14_4_2_5	-0.00002	0.04426	0.04429	0.04428	0.04429
Ati_P16_3_3_7	0.04105	0.04654	0.04653	0.04467	0.05256

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
Ati_P14_4_3_4	-0.00016	0.04899	0.04900	0.04900	0.04901
Ati_P17_3_5_6	-0.02434	0.04971	0.04969	0.05093	0.05094
Ati_P17_3_3_8	0.07437	0.05365	0.05367	0.04980	0.06382
Ati_P17_3_4_7	-0.01477	0.05432	0.05435	0.05513	0.05519
Ati_P16_5_2_6	-0.00144	0.05654	0.05657	0.05664	0.05665
Ati_P13_2_4_4	-0.04168	0.05667	0.05680	0.05928	0.05922
Ati_P11_3_1_4	-0.00098	0.05788	0.05791	0.05794	0.05802
Ati_P12_2_2_5	-0.00863	0.05838	0.05841	0.05889	0.05931
Ati_P12_2_3_4	-0.00355	0.05925	0.05926	0.05947	0.05947
Ati_P13_4_3_3	-0.07212	0.06014	0.06016	0.06464	0.06471
Ati_P11_3_2_3	-0.09904	0.06362	0.06366	0.07025	0.07068
Ati_P8_1_2_2	-0.00005	0.05229	0.06667	0.06666	0.06667
Ati_P13_2_2_6	0.01032	0.07017	0.07033	0.06945	0.07283
Ati_P13_2_3_5	-0.00286	0.07169	0.07184	0.07204	0.07205
Ati_P13_4_1_5	-0.00095	0.07356	0.07355	0.07363	0.07366
Ati_P13_4_2_4	-0.09727	0.07701	0.07701	0.08553	0.08488
Ati_P14_2_3_6	0.05066	0.07902	0.07908	0.07512	0.08203
Ati_P15_2_5_5	-0.03634	0.07842	0.07911	0.08185	0.08204
Ati_P15_5_1_6	0.33203	0.08204	0.08204	0.05868	0.09275
Ati_P8_1_1_3	-0.12812	0.08270	0.08277	0.09977	0.09410
Ati_P11_2_1_5	0.01397	0.08628	0.03390	0.09833	0.03343
Ati_P15_2_4_6	-0.00320	0.08667	0.08674	0.08698	0.08702
Ati_P16_2_5_6	0.10377	0.08802	0.08813	0.07934	0.08983
Ati_P17_6_2_6	-0.00625	0.08960	0.08959	0.09016	0.09016
Ati_P15_2_3_7	0.22448	0.08950	0.08965	0.07144	0.09333
Ati_P10_3_2_2	-0.05467	0.09130	0.09136	0.09784	0.09650
Ati_P17_2_6_6	0.23579	0.09491	0.09525	0.07489	0.09777
Ati_P15_5_3_4	-0.00063	0.09528	0.09528	0.09544	0.09534
Ati_P16_2_4_7	-0.00501	0.09668	0.09671	0.09717	0.09725

3.25 Aco

3.25.1 New

Name	Symmetric	
	Δ_l	Δ_a
Aco_P13_1_2_1_5	0.05580	0.05589
Aco_P10_1_1_3_1	0.07504	0.07508
Aco_P17_1_3_6_3	0.07844	0.07850
Aco_P14_1_2_2_5	0.08012	0.06545
Aco_P11_2_1_3_1	0.07955	0.08642
Aco_P17_1_3_2_7	0.09145	0.09159
Aco_P17_1_3_5_4	0.09205	0.09202

3.25.2 Comparison

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
Aco_P17_2_4_3_4	-0.00801	0.00000	0.00083	0.00005	0.00084
Aco_P15_2_3_2_4	0.00243	0.00282	0.00282	0.00281	0.00282
Aco_P10_1_2_1_2	0.86759	0.00003	0.00511	0.00001	0.00510
Aco_P16_2_4_2_4	0.00009	0.00000	0.00641	0.00001	0.00641
Aco_P16_2_3_2_5	0.00061	0.00754	0.00754	0.00754	0.00754
Aco_P14_2_2_2_4	0.00059	0.01284	0.01285	0.01284	0.01284
Aco_P17_2_3_5_3	-0.25787	0.01424	0.01424	0.02244	0.01846
Aco_P14_2_3_2_3	0.00076	0.00000	0.01429	0.00002	0.01428
Aco_P17_2_4_2_5	-0.00004	0.01477	0.01490	0.01490	0.01490
Aco_P11_1_2_2_2	-0.00190	0.00001	0.01490	0.00041	0.01493
Aco_P16_2_3_4_3	-0.00146	0.00004	0.01577	0.00093	0.01579
Aco_P17_2_3_2_6	-0.00024	0.01702	0.01708	0.01708	0.01708
Aco_P11_1_2_1_3	0.02129	0.01798	0.01807	0.01760	0.01806
Aco_P17_3_3_3_4	-0.00210	0.02205	0.02212	0.02216	0.02217
Aco_P15_2_3_3_3	-0.00283	0.00000	0.02213	0.00021	0.02219
Aco_P13_1_3_2_3	-0.00158	0.00001	0.02353	0.00021	0.02357
Aco_P13_2_2_2_3	0.00030	0.02681	0.02699	0.02698	0.02698
Aco_P14_1_3_3_3	-0.00064	0.00000	0.02870	0.00051	0.02872
Aco_P17_3_2_3_5	-0.00072	0.02861	0.02872	0.02881	0.02874
Aco_P16_3_3_3_3	1.13327	0.00014	0.03092	0.00004	0.03090
Aco_P9_1_1_1_2	0.00154	0.03216	0.03217	0.03212	0.03212
Aco_P12_1_3_1_3	0.00074	0.00001	0.03510	0.00008	0.03507
Aco_P14_2_2_4_2	-0.00808	0.01779	0.03704	0.01843	0.03734
Aco_P12_1_2_1_4	0.00086	0.03807	0.03808	0.03805	0.03805
Aco_P15_1_3_4_3	1.93753	0.00504	0.03846	0.00008	0.04042
Aco_P16_2_3_3_4	0.00100	0.03876	0.03876	0.03872	0.03873
Aco_P17_3_3_4_3	0.00175	0.03082	0.03894	0.03467	0.03887
Aco_P16_3_2_3_4	-0.00009	0.04041	0.04044	0.04044	0.04044
Aco_P12_2_2_2_2	1.36761	0.00005	0.04328	0.00001	0.04326
Aco_P17_2_3_3_5	0.00001	0.04348	0.04351	0.04350	0.04351
Aco_P14_1_3_2_4	0.00067	0.04396	0.04396	0.04393	0.04393
Aco_P16_1_3_5_3	-0.03103	0.04508	0.04762	0.07624	0.04912
Aco_P16_3_2_5_2	-0.05230	0.02653	0.04765	0.04889	0.05021
Aco_P13_1_3_1_4	0.00009	0.04162	0.05013	0.04229	0.05013
Aco_P13_2_2_3_2	0.00941	0.02607	0.05066	0.02583	0.05066

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
Aco_P16_1_4_3_4	-0.00105	0.00002	0.05076	0.00043	0.05081
Aco_P15_1_4_2_4	-0.00144	0.00002	0.05123	0.00005	0.05130
Aco_P16_2_2_3_5	-0.00010	0.05207	0.05207	0.05209	0.05208
Aco_P15_3_2_3_3	-0.00071	0.05184	0.05229	0.05225	0.05233
Aco_P17_2_3_4_4	0.00625	0.05324	0.05323	0.05291	0.05290
Aco_P17_1_4_4_4	-0.00103	0.00001	0.05582	0.00455	0.05588
Aco_P13_1_2_4_2	-0.23921	0.05692	0.05692	0.07239	0.07283
Aco_P15_2_2_5_2	0.00005	0.05710	0.05713	0.05710	0.05715
Aco_P17_3_2_6_2	-0.23904	0.05726	0.05715	0.07281	0.07289
Aco_P15_1_3_3_4	0.00078	0.05878	0.05880	0.05875	0.05875
Aco_P17_1_4_3_5	-0.00227	0.06156	0.06157	0.06171	0.06171
Aco_P13_1_2_2_4	0.00036	0.06165	0.06165	0.06163	0.06163
Aco_P14_1_4_1_4	0.00047	0.00005	0.06190	0.00013	0.06187
Aco_P15_1_3_2_5	-0.00101	0.06298	0.06300	0.06306	0.06306
Aco_P14_1_3_1_5	0.00050	0.06350	0.06363	0.06359	0.06360
Aco_P12_2_1_2_3	0.00214	0.04239	0.06371	0.04266	0.06357
Aco_P12_1_2_2_3	0.00198	0.06450	0.06452	0.06439	0.06439
Aco_P16_1_4_2_5	-0.00064	0.02738	0.06477	0.03530	0.06481
Aco_P15_3_2_4_2	-0.00006	0.06695	0.06701	0.06699	0.06701
Aco_P16_1_3_4_4	-0.06075	0.06735	0.06739	0.07165	0.07161
Aco_P15_2_2_3_4	0.00077	0.06908	0.06908	0.06903	0.06903
Aco_P14_3_2_3_2	0.54388	0.00002	0.06986	0.00001	0.07290
Aco_P9_1_1_2_1	0.04655	0.01384	0.07115	0.01321	0.07115
Aco_P17_1_5_2_5	-0.00238	0.00001	0.07138	0.00004	0.07155
Aco_P8_1_1_1_1	0.00037	0.00000	0.07212	0.00001	0.07209
Aco_P15_1_4_1_5	0.00032	0.04649	0.07245	0.06574	0.07243
Aco_P14_2_2_3_3	0.00370	0.07351	0.07357	0.07324	0.07345
Aco_P17_3_2_4_4	0.00014	0.07600	0.07604	0.07619	0.07603
Aco_P15_1_3_1_6	0.00037	0.07600	0.07613	0.07605	0.07610
Aco_P17_4_2_4_3	0.07407	0.01434	0.07763	0.07139	0.07209
Aco_P17_1_4_2_6	0.00022	0.07786	0.07794	0.07784	0.07813
Aco_P16_1_3_2_6	-0.00017	0.07880	0.07897	0.07899	0.07898
Aco_P16_3_2_4_3	0.00127	0.07969	0.07971	0.07960	0.07961
Aco_P16_1_5_1_5	0.00029	0.00025	0.08104	0.00029	0.08102
Aco_P16_1_4_1_6	-0.00021	0.08175	0.08199	0.08200	0.08201

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
Aco_P17_4_2_5_2	-0.00024	0.08201	0.08209	0.08212	0.08211
Aco_P17_3_2_5_3	0.03310	0.08378	0.08373	0.08105	0.08106
Aco_P15_2_2_4_3	0.05587	0.08419	0.08421	0.07965	0.07963
Aco_P17_1_3_3_6	0.00142	0.08612	0.08620	0.08609	0.08608
Aco_P11_2_1_2_2	0.00144	0.08661	0.08703	0.08688	0.08690
Aco_P16_1_3_1_7	0.00035	0.08755	0.08777	0.08781	0.08774
Aco_P16_1_3_3_5	0.00084	0.08809	0.08806	0.08802	0.08805
Aco_P16_4_2_4_2	-0.09598	0.00011	0.08884	0.09766	0.09780
Aco_P17_1_5_1_6	-0.00050	0.04825	0.08886	0.04985	0.08890
Aco_P13_1_2_3_3	0.00685	0.08946	0.08945	0.08885	0.08887
Aco_P17_1_4_1_7	-0.00060	0.09085	0.09118	0.09117	0.09123
Aco_P11_1_1_2_3	0.00035	0.09382	0.09394	0.09391	0.09391
Aco_P16_2_2_6_2	-0.03023	0.09502	0.09502	0.09794	0.09794
Aco_P17_2_2_4_5	-0.00005	0.09642	0.09652	0.09652	0.09652

3.25.3 Regular Extra:

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
Aco_P10_1_1_1_3	0.00000	0.00000	0.00000	0	0
Aco_P15_2_2_2_5	0.00000	0.00000	0.00000	0	0
Aco_P20_3_3_3_7	0.00000	0.00000	0.00000	0	0

3.26 Aid

3.26.1 Comparison

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
Aid_P16_2_4_2_4	0.00042	0.00000	0.00860	0.00001	0.00860
Aid_P12_1_3_1_3	-0.00002	0.00000	0.01145	0.00001	0.01145
Aid_P14_2_3_2_3	0.00022	0.00000	0.02962	0.00002	0.02961
Aid_P10_1_2_1_2	0.26154	0.00001	0.02974	0.00001	0.02974
Aid_P14_1_4_1_4	0.54384	0.00003	0.03891	0.00002	0.03891
Aid_P16_3_3_3_3	-0.00090	0.00000	0.04218	0.00002	0.04222
Aid_P16_1_5_1_5	0.50231	0.00007	0.05852	0.00004	0.05853
Aid_P12_2_2_2_2	-0.00021	0.00000	0.05904	0.00001	0.05905
Aid_P14_3_2_3_2	1.43672	0.00006	0.08517	0.00001	0.08542
Aid_P8_1_1_1_1	1.42010	0.00006	0.09839	0.00001	0.09840

3.27 Arcd

3.27.1 Missing

Name	General	
	Δ_l	Δ_a
Arcd_P13_1_2_3_3	0.02083	0.02084
Arcd_P13_1_2_4_2	0.06247	0.06263
Arcd_P13_2_1_4_2	0.07867	0.07868
Arcd_P14_2_2_4_2	0.01037	0.03718
Arcd_P15_3_2_4_2	0.03861	0.03891
Arcd_P15_1_3_4_3	0.03874	0.03878
Arcd_P15_1_2_4_4	0.04493	0.04493
Arcd_P15_2_2_5_2	0.06311	0.06409
Arcd_P15_2_1_5_3	0.08765	0.08764
Arcd_P16_2_2_4_4	0.01237	0.01240
Arcd_P16_2_2_5_3	0.06032	0.06032
Arcd_P16_1_3_5_3	0.06140	0.06167
Arcd_P17_3_3_3_4	0.09188	0.09215

3.27.2 New

Name	Symmetric	
	Δ_l	Δ_a
Arcd_P9_1_1_2_1	0.03025	0.03574
Arcd_P17_1_3_6_3	0.07852	0.07852
Arcd_P11_2_1_3_1	0.01180	0.08334
Arcd_P17_4_3_3_3	0.09429	0.09439
Arcd_P17_3_4_2_4	0.09736	0.09737

3.27.3 Comparison

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
Arcd_P16_2_3_4_3	0.06745	0.00653	0.00654	0.00610	0.00618
Arcd_P17_2_3_5_3	-0.08792	0.01421	0.01424	0.01552	0.01571
Arcd_P17_2_3_4_4	-0.00838	0.01759	0.01761	0.01774	0.01779
Arcd_P15_2_2_4_3	-0.00096	0.01717	0.02197	0.02198	0.02199
Arcd_P12_1_1_3_3	-0.00003	0.02340	0.02339	0.02340	0.02340
Arcd_P13_2_2_3_2	-0.14567	0.02457	0.02460	0.02903	0.02846
Arcd_P11_1_2_2_2	0.00008	0.02574	0.02576	0.02577	0.02576
Arcd_P17_3_3_4_3	-0.06984	0.02660	0.02661	0.02853	0.02858
Arcd_P15_2_3_3_3	-0.14413	0.02758	0.02758	0.03186	0.03199
Arcd_P17_2_2_4_5	0.01607	0.03278	0.00985	0.03474	0.00969
Arcd_P14_1_2_3_4	-0.00075	0.00001	0.03368	0.00052	0.03371
Arcd_P10_1_1_2_2	-0.00118	0.03586	0.03592	0.03596	0.03596
Arcd_P17_2_2_5_4	-0.00410	0.03621	0.03623	0.03640	0.03638
Arcd_P17_3_2_5_3	-0.00450	0.03879	0.03894	0.03913	0.03912
Arcd_P17_2_4_3_4	-0.07059	0.04048	0.04061	0.04366	0.04358
Arcd_P15_1_3_3_4	0.08528	0.03399	0.04447	0.03121	0.04450
Arcd_P15_1_2_3_5	-0.00210	0.04452	0.04454	0.04463	0.04463
Arcd_P15_2_2_3_4	0.00139	0.04677	0.04676	0.04670	0.04682
Arcd_P13_2_1_3_3	0.00082	0.04917	0.04918	0.04914	0.04914
Arcd_P17_3_2_4_4	-0.00430	0.04941	0.04944	0.04964	0.04965
Arcd_P14_2_2_3_3	0.00002	0.05079	0.05079	0.05079	0.05080
Arcd_P16_3_2_5_2	0.20286	0.05122	0.05195	0.04179	0.04826
Arcd_P16_1_3_4_4	-0.00073	0.00004	0.05216	0.00040	0.05220
Arcd_P16_1_3_3_5	-0.00077	0.00898	0.05336	0.00960	0.05340
Arcd_P16_1_2_4_5	-0.00078	0.05368	0.05403	0.05407	0.05407
Arcd_P16_1_4_3_4	-0.00160	0.05480	0.05479	0.05490	0.05488
Arcd_P17_4_2_5_2	-0.00346	0.03729	0.05560	0.04951	0.05579
Arcd_P16_3_3_3_3	-0.32211	0.05640	0.05645	0.07806	0.07814
Arcd_P17_1_4_4_4	-0.00956	0.00012	0.05697	0.00123	0.05752
Arcd_P14_2_1_4_3	0.01629	0.03595	0.05698	0.03537	0.05699
Arcd_P14_1_2_4_3	0.00082	0.05725	0.05724	0.05720	0.05720
Arcd_P17_3_2_6_2	-0.03900	0.05730	0.05734	0.05958	0.05964
Arcd_P13_1_3_2_3	-0.00043	0.03581	0.05763	0.05055	0.05765
Arcd_P17_1_3_5_4	-0.00589	0.05902	0.05903	0.05938	0.05938
Arcd_P11_1_1_3_2	0.00079	0.06101	0.06105	0.06101	0.06100

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
Arcd_P17_1_3_4_5	-0.00230	0.06102	0.06109	0.06117	0.06123
Arcd_P16_2_3_3_4	0.00166	0.06108	0.06118	0.06109	0.06108
Arcd_P17_1_3_3_6	-0.00210	0.03709	0.06137	0.06147	0.06150
Arcd_P17_1_4_3_5	-0.00303	0.06198	0.06234	0.06247	0.06253
Arcd_P12_2_1_3_2	-0.00405	0.06321	0.06331	0.06353	0.06357
Arcd_P17_2_3_3_5	-0.00111	0.06336	0.06336	0.06343	0.06346
Arcd_P16_3_2_4_3	0.00002	0.06364	0.06365	0.06364	0.06365
Arcd_P12_1_2_2_3	0.00108	0.06577	0.06576	0.06570	0.06569
Arcd_P14_1_3_3_3	1.34984	0.06662	0.06678	0.01293	0.03354
Arcd_P16_1_2_5_4	-0.00011	0.06739	0.06740	0.06740	0.06741
Arcd_P12_2_2_2_2	-0.36759	0.06742	0.06742	0.09790	0.09778
Arcd_P14_2_3_2_3	-0.16686	0.07417	0.07419	0.08773	0.08769
Arcd_P11_1_1_2_3	0.00863	0.07502	0.03512	0.07438	0.03517
Arcd_P10_1_1_3_1	-0.11899	0.07493	0.07507	0.08449	0.08457
Arcd_P13_1_2_2_4	0.00023	0.07522	0.07537	0.07536	0.07535
Arcd_P15_3_1_4_3	0.04830	0.06659	0.07798	0.06345	0.07936
Arcd_P14_1_3_2_4	0.00052	0.07930	0.07929	0.07926	0.07926
Arcd_P14_3_2_3_2	-0.05744	0.07938	0.07940	0.08529	0.08410
Arcd_P13_1_1_4_3	-0.00051	0.07963	0.07963	0.07967	0.07967
Arcd_P15_1_4_2_4	-0.00220	0.00014	0.08019	0.05049	0.08037
Arcd_P16_3_2_3_4	-0.00076	0.08274	0.08273	0.08280	0.08282
Arcd_P16_4_2_4_2	-0.02388	0.08498	0.08502	0.08707	0.08707
Arcd_P16_3_1_5_3	0.17084	0.05075	0.08633	0.04276	0.08749
Arcd_P16_2_4_2_4	-0.09389	0.08806	0.08806	0.09674	0.09676
Arcd_P15_1_3_2_5	-0.00103	0.08827	0.08834	0.08843	0.08843
Arcd_P16_1_4_2_5	-0.00293	0.09153	0.09165	0.09190	0.09192
Arcd_P14_3_1_4_2	0.00175	0.09126	0.09170	0.09155	0.09154
Arcd_P14_2_2_2_4	0.00012	0.09472	0.09477	0.09475	0.09476
Arcd_P17_2_4_2_5	-0.02516	0.09630	0.09637	0.09883	0.09883
Arcd_P17_1_5_2_5	-0.00348	0.00000	0.09669	0.08279	0.09703
Arcd_P16_1_3_2_6	-0.00033	0.09785	0.09791	0.09790	0.09794
Arcd_P17_1_2_6_4	-0.00431	0.09917	0.09915	0.09960	0.09960

3.28 Arco

3.28.1 Missing

Name	General	
	Δ_l	Δ_a
Arco_P17_2_3_5_3	0.01714	0.01711

3.28.2 New

Name	Symmetric	
	Δ_l	Δ_a
Arco_P14_1_2_2_5	0.05298	0.05311
Arco_P16_4_3_2_3	0.07024	0.07026
Arco_P17_1_3_6_3	0.07844	0.07851
Arco_P11_2_2_1_2	0.05503	0.08333
Arco_P17_1_3_2_7	0.08575	0.07701
Arco_P16_2_2_6_2	0.09503	0.09500

3.28.3 Comparison

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
Arco_P11_1_2_2_2	0.00065	0.00020	0.00109	0.00021	0.00109
Arco_P15_2_3_3_3	0.02621	0.00441	0.00442	0.00430	0.00435
Arco_P11_1_1_2_3	0.02022	0.00511	0.00277	0.00520	0.00271
Arco_P16_2_3_4_3	-0.00621	0.00001	0.01439	0.00017	0.01448
Arco_P17_2_4_3_4	-0.00835	0.00357	0.01452	0.00901	0.01464
Arco_P17_2_2_4_5	0.00010	0.01724	0.01725	0.01725	0.01725
Arco_P17_2_3_4_4	0.00056	0.01976	0.01976	0.01975	0.01976
Arco_P12_1_2_2_3	0.00037	0.01990	0.01989	0.01989	0.01990
Arco_P15_2_2_3_4	-0.00018	0.02037	0.02040	0.02040	0.02040
Arco_P16_2_3_3_4	0.00157	0.02197	0.02198	0.02194	0.02197
Arco_P14_2_2_3_3	-0.00092	0.02205	0.02598	0.02234	0.02600
Arco_P17_3_3_4_3	0.04515	0.02715	0.02715	0.02595	0.02628
Arco_P14_3_2_3_2	-0.02492	0.00000	0.02778	0.02477	0.02848
Arco_P14_2_3_2_3	-0.00226	0.00724	0.02925	0.00749	0.02932
Arco_P10_1_1_2_2	0.00114	0.02952	0.02956	0.02952	0.02953
Arco_P14_1_3_3_3	-0.00163	0.00001	0.03110	0.00009	0.03115
Arco_P17_2_3_3_5	0.00079	0.03326	0.03332	0.03330	0.03329
Arco_P13_1_3_2_3	-0.00074	0.03136	0.03492	0.03348	0.03495
Arco_P16_2_2_4_4	0.00017	0.03585	0.03587	0.03586	0.03586
Arco_P17_3_2_4_4	-0.00090	0.03665	0.03672	0.03675	0.03675
Arco_P14_2_2_4_2	-0.08800	0.01636	0.03704	0.04001	0.04045
Arco_P13_2_2_3_2	-0.03311	0.00001	0.03785	0.00006	0.03912
Arco_P13_1_2_2_4	-0.00008	0.03776	0.03785	0.03786	0.03785
Arco_P15_1_3_4_3	0.47252	0.00505	0.03846	0.00312	0.03890
Arco_P17_4_3_3_3	-0.15105	0.03907	0.03913	0.04552	0.04552
Arco_P15_3_3_2_3	-0.30274	0.04324	0.04324	0.05866	0.05884
Arco_P14_1_2_3_4	-0.00074	0.04371	0.04381	0.04384	0.04384
Arco_P16_3_2_4_3	-0.00070	0.04390	0.04402	0.04402	0.04405
Arco_P16_2_2_3_5	0.03782	0.04496	0.01745	0.04689	0.01680
Arco_P14_1_3_2_4	-0.00089	0.04706	0.04720	0.04722	0.04724
Arco_P16_1_3_5_3	-0.53127	0.04755	0.04762	0.08195	0.08211
Arco_P16_4_2_4_2	-0.06433	0.00043	0.04762	0.05081	0.05079
Arco_P16_3_2_5_2	-0.05271	0.02780	0.04765	0.05012	0.05023
Arco_P13_1_2_3_3	0.00134	0.04855	0.04859	0.04852	0.04852
Arco_P15_1_3_3_4	0.58557	0.00024	0.04903	0.00013	0.04908

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
Arco_P16_2_4_2_4	-0.00403	0.00001	0.05020	0.00091	0.05040
Arco_P13_2_1_3_3	0.08914	0.03153	0.05202	0.02884	0.05259
Arco_P15_1_2_3_5	0.00148	0.05558	0.05568	0.05550	0.05571
Arco_P16_1_4_3_4	-0.00110	0.00001	0.05621	0.00022	0.05627
Arco_P15_1_3_2_5	-0.00094	0.05615	0.05633	0.05638	0.05638
Arco_P15_2_2_4_3	-0.00157	0.05631	0.05635	0.05640	0.05657
Arco_P17_1_4_4_4	-0.00264	0.00003	0.05639	0.00006	0.05654
Arco_P17_3_4_2_4	-0.09469	0.05636	0.05643	0.06196	0.06238
Arco_P13_1_2_4_2	-0.14929	0.05687	0.05689	0.06627	0.06607
Arco_P15_2_2_5_2	-0.06117	0.05715	0.05713	0.06076	0.06076
Arco_P17_3_2_6_2	-0.02627	0.05678	0.05732	0.05886	0.05885
Arco_P15_1_4_2_4	-0.00125	0.05825	0.05858	0.05862	0.05865
Arco_P17_3_3_3_4	0.01630	0.06014	0.06015	0.05917	0.05937
Arco_P17_2_4_2_5	-0.00045	0.06115	0.06128	0.06136	0.06131
Arco_P13_3_2_2_2	-0.07146	0.06139	0.06139	0.06780	0.06594
Arco_P16_1_3_3_5	-0.00047	0.06170	0.06191	0.06194	0.06194
Arco_P10_2_1_2_1	-0.02962	0.00000	0.06250	0.03223	0.06438
Arco_P16_1_3_4_4	0.00414	0.06361	0.06364	0.06335	0.06371
Arco_P10_1_2_1_2	-0.00212	0.00003	0.06406	0.00177	0.06420
Arco_P15_3_2_4_2	0.00009	0.06602	0.06629	0.06625	0.06628
Arco_P15_2_3_2_4	0.00203	0.06656	0.06649	0.06642	0.06644
Arco_P17_1_4_3_5	-0.00121	0.06703	0.06704	0.06711	0.06713
Arco_P16_1_3_2_6	-0.00037	0.06703	0.06747	0.06730	0.06750
Arco_P12_1_1_3_3	-0.00013	0.06797	0.06800	0.06801	0.06801
Arco_P16_1_4_2_5	-0.00069	0.06803	0.06805	0.06809	0.06810
Arco_P17_1_3_4_5	-0.00147	0.06794	0.06812	0.06806	0.06822
Arco_P15_4_2_3_2	-0.06657	0.06817	0.06821	0.07299	0.07291
Arco_P9_1_1_2_1	0.04877	0.00743	0.06954	0.00708	0.06959
Arco_P17_4_2_5_2	0.00651	0.07104	0.07102	0.07058	0.07059
Arco_P17_5_2_4_2	-0.01534	0.07103	0.07113	0.07215	0.07223
Arco_P16_3_2_3_4	-0.00009	0.07108	0.07114	0.07115	0.07115
Arco_P17_1_3_3_6	0.00007	0.07123	0.07126	0.07122	0.07129
Arco_P14_2_2_2_4	0.00023	0.07157	0.07164	0.07161	0.07162
Arco_P15_1_2_4_4	-0.00049	0.07362	0.07366	0.07370	0.07370
Arco_P17_1_4_2_6	-0.00158	0.00001	0.07418	0.00160	0.07430

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
Arco_P17_3_2_5_3	0.02308	0.07311	0.07445	0.07297	0.07275
Arco_P10_1_1_3_1	-0.07465	0.07507	0.07507	0.08089	0.08156
Arco_P17_1_5_2_5	-0.00284	0.07592	0.07600	0.07621	0.07622
Arco_P12_2_1_3_2	-0.00009	0.07687	0.07694	0.07695	0.07695
Arco_P16_2_3_2_5	0.00033	0.07804	0.07803	0.07801	0.07801
Arco_P17_2_2_5_4	-0.00028	0.07946	0.07949	0.07951	0.07951
Arco_P17_2_3_2_6	0.00094	0.07990	0.08005	0.08014	0.07997
Arco_P16_3_3_2_4	-0.10159	0.08299	0.08298	0.09226	0.09186
Arco_P14_2_1_4_3	0.00327	0.08294	0.08419	0.08267	0.08447
Arco_P13_2_2_2_3	0.00744	0.08575	0.08581	0.08511	0.08593
Arco_P11_2_1_3_1	-0.06208	0.07701	0.08642	0.09805	0.09196
Arco_P15_3_1_4_3	0.05428	0.05321	0.08727	0.05040	0.08771
Arco_P15_3_2_3_3	0.03259	0.09066	0.09067	0.08776	0.08776
Arco_P9_1_1_1_2	0.00258	0.09123	0.09122	0.09099	0.09099
Arco_P17_1_3_5_4	-0.03078	0.09303	0.09303	0.09598	0.09594
Arco_P14_3_1_3_3	-0.00050	0.09361	0.09373	0.09379	0.09378
Arco_P17_4_2_4_3	0.02076	0.09753	0.09766	0.09565	0.09565
Arco_P11_1_2_1_3	0.00286	0.09976	0.09973	0.09947	0.09947

3.29 Asc

3.29.1 Comparison

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
Asc_P11_2_1_1_1_1	0.00618	0.00499	0.00273	0.00496	0.00272
Asc_P17_4_2_1_3_2	-0.00073	0.09923	0.09933	0.09941	0.09940
Asc_P16_3_2_2_2_2	0.00008	0.03510	0.03507	0.03510	0.03511
Asc_P15_3_2_1_2_2	0.00030	0.05613	0.05613	0.05611	0.05614
Asc_P17_2_3_1_3_3	-0.00056	0.08456	0.08468	0.08472	0.08473
Asc_P15_4_1_3_1_1	0.00045	0.08520	0.08555	0.08548	0.08551
Asc_P14_4_1_2_1_1	0.00733	0.08732	0.07956	0.08715	0.07898
Asc_P16_3_3_1_2_2	-0.00014	0.09540	0.09539	0.09541	0.09546
Asc_P17_3_2_3_2_2	0.01006	0.09547	0.09541	0.09546	0.09445
Asc_P12_3_1_1_1_1	0.01711	0.09789	0.04364	0.09990	0.04290
Asc_P15_2_3_1_2_2	-0.00005	0.09916	0.09917	0.09917	0.09917
Asc_P12_2_1_2_1_1	0.00011	0.09777	0.06117	0.09799	0.06116
Asc_P16_2_3_1_2_3	-0.00047	0.09916	0.09917	0.09921	0.09923
Asc_P17_4_2_2_2_2	-0.00078	0.02697	0.02699	0.02699	0.02702
Asc_P13_3_1_2_1_1	0.00176	0.05042	0.05042	0.05033	0.05039
Asc_P14_2_2_1_2_2	-0.00021	0.05575	0.05577	0.05578	0.05578
Asc_P17_2_3_2_2_3	-0.00039	0.08081	0.08104	0.08105	0.08107
Asc_P16_4_2_1_2_2	-0.00021	0.09379	0.09378	0.09381	0.09389
Asc_P15_2_2_2_2_2	0.00038	0.09472	0.09472	0.09471	0.09468
Asc_P17_3_3_2_2_2	0.00033	0.09487	0.09483	0.09484	0.09486
Asc_P14_3_1_3_1_1	0.00618	0.09500	0.08969	0.09441	0.08923
Asc_P17_3_2_2_2_3	-0.00065	0.09955	0.09962	0.09964	0.09968

3.30 Asd

3.30.1 Missing

Name	General	
	Δ_l	Δ_a
Asd_P15_4_1_3_1_1	0.06145	0.07458
Asd_P15_5_1_2_1_1	0.09550	0.09610
Asd_P16_5_1_3_1_1	0.08238	0.08240
Asd_P16_3_3_1_2_2	0.08803	0.08802
Asd_P17_5_2_1_2_2	0.07894	0.07937
Asd_P17_3_3_1_2_3	0.09139	0.09150
Asd_P17_4_3_1_2_2	0.09126	0.09156
Asd_P17_5_1_4_1_1	0.09772	0.09772

3.30.2 Comparison

Name	Δ_{def}	Symmetric		General	
		Δ_l	Δ_a	Δ_l	Δ_a
Asd_P16_4_2_1_2_2	-0.00104	0.03598	0.05405	0.05411	0.05411
Asd_P14_4_1_2_1_1	0.13232	0.06087	0.06109	0.05351	0.05351
Asd_P16_3_2_2_2_2	0.00873	0.06740	0.07012	0.06956	0.06951
Asd_P17_4_2_2_2_2	0.74850	0.04695	0.04679	0.02138	0.02137
Asd_P12_3_1_1_1_1	0.00498	0.03074	0.03078	0.03063	0.03063
Asd_P11_2_1_1_1_1	0.00018	0.05973	0.05929	0.05972	0.05971
Asd_P15_3_2_1_2_2	0.27310	0.04288	0.04387	0.03258	0.04425
Asd_P13_3_1_2_1_1	0.53299	0.09479	0.04749	0.05490	0.04875
Asd_P16_2_3_1_2_3	-0.00182	0.09427	0.09721	0.09716	0.09739
Asd_P14_2_2_1_2_2	0.07136	0.09030	0.09566	0.08906	0.08907

References

- [1] Piette Bernard M. A. G., Kowalczyk Agnieszka and Heddle Jonathan G. *Characterization of near-miss connectivity-invariant homogeneous convex polyhedral cages* Proc. R. Soc. A. 478:20210679 <http://doi.org/10.1098/rspa.2021.0679>
- [2] H.S.M. Coxeter, *Regular polytopes* (Dover Publications, Mineola, NY, USA, 1973).

- [3] M.A. Armstrong, *Groups and symmetry* (Springer-Verlag, New York, NY, USA, 1988).
- [4] M. Hamermesh, *Group theory and its application to physical problems* (Addison-Wesley Publishing Co., Inc., Reading, MA, USA, 1962).
- [5] The GAP Group, *GAP - Groups, Algorithms, and Programming*, Version 4.10.2; 2019 (<https://www.gap-system.org>).