Mathematical and Computational Models of Cognition

Guest Editor:

Prof. Dr. Ronaldo Vigo
Consortium for the Advancement of Cognitive Science, Psychology Department, College of Arts and Sciences, Ohio University, 45701 Athens, OH, USA

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Message from the Guest Editor

One of the ultimate goals of Cognitive Science is to discover the mathematical laws and computational processes that govern human behavior and the human mind, and to achieve this with the systematicity and rigor found in the physical sciences. Indeed, the development of such models is crucial for rigorous theory development, measurement, and testing in Cognitive Science and Psychology.

This Special Issue has two aims. The first is to assemble papers that propose, apply, test mathematical and computational models of any of the following cognitive capacities: perception, similarity assessment, attention, memory, concept learning, categorization, language, problem solving, reasoning, and decision-making. The second aim is to inform and motivate mathematicians from many fields of mathematics to engage in cognitive modeling. From so doing, new mathematical approaches to long-standing problems may emerge and more accurate and tenable models may be discovered. Contributions may involve any style of mathematical and computational modeling, whether deterministic or probabilistic, providing that the approach is accompanied by a plausible cognitive mechanism and adequate theory development.

Special Issue

Editor-in-Chief

Prof. Dr. Francisco Chiclana
School of Computer Science and Informatics, De Montfort University, The Gateway, Leicester LE1 9BH, UK

Message from the Editor-in-Chief

The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

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