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Non-associative Structures and Other Related Structures

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Message from the Guest Editor

Non-associative algebras are currently a fashionable research direction. There are two important classes of non-associative structures: Lie structures and Jordan structures. Various Jordan structures play an important role in quantum group theory and in fundamental physical theories.

In recent years, several attempts to unify non-associative structures have led to interesting results. The UJLA structures are not the only structures which realize such a unification.

Associative algebras and Lie algebras can be unified at the level of Yang–Baxter structures. Several papers published in the open access journal *Axioms* deal with the Yang–Baxter equation.

The Yang–Baxter equation can be interpreted in terms of logical circuits and, in logic, it represents a kind of compatibility condition when working with many logical sentences in the same time. This equation is also related to the theory of universal quantum gates and to quantum computers. It has many applications in quantum groups and knot theory.

Contributions related to non-associative structures, various aspects of the Yang–Baxter Equation, and their applications are invited.