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Hopf Algebras, Quantum Groups and Yang–Baxter Equations 2017

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

The Yang–Baxter Equation first appeared in theoretical physics, in a paper of the Nobel laureate C.N. Yang, and in statistical mechanics, in R.J. Baxter's work. Later, it turned out that this equation plays a crucial role in quantum groups; knot theory; braided categories; analysis of integrable systems; quantum mechanics; non-commutative descent theory; quantum computing; non-commutative geometry, *etc.*

Many scientists have used the axioms of various algebraic structures (quasitriangular Hopf algebras, Yetter–Drinfeld categories, Lie (super)algebras, algebra structures, Boolean algebras, brace structures, relations on sets, *etc.*) or computer calculations in order to produce solutions for the Yang–Baxter Equation. However, the full classification of its solutions remains an open problem.

Contributions related to the various aspects of the Yang–Baxter Equation, the related algebraic structures, and their applications are invited. We would like to gather together relevant reviews, research articles, and communications.

Dr. Florin Felix Nichita
Guest Editor