



Lie algebras and Yang-Baxter equations

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At the previous congress (CRM 6), we reviewed the construction of Yang-Baxter operators from associative algebras, and presented some (colored) bialgebras and Yang-Baxter systems related to them. The current talk deals with Yang-Baxter operators from (G, θ) -Lie algebras (structures which unify the Lie algebras and the Lie superalgebras). Thus, we produce solutions for the constant and the spectral-parameter Yang-Baxter equations, Yang-Baxter systems, etc. Attempting to present the general framework we review the work of other authors and we propose problems, applications and directions of study.

Comments: Talk given at the 7-th Congress of the Romanian Mathematicians

Subjects: **Quantum Algebra (math.QA)**; High Energy Physics - Theory (hep-th)

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