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Organised by

Tallinn University of Technology, Estonia and Lund University, Sweden

Editors: Eugen Paal (Tallinn) and Sergei Silvestrov (Lund)

This special issue of Journal of Nonlinear Mathematical Physics is devoted to the international workshop held in Tallinn in October 2005. The workshop has been organised jointly by Tallinn University of Technology, Estonia, and Lund University, Sweden as a part of the activities of Baltic-Nordic Algebra, Geometry, and Mathematical Physics Network (AGMF). This is the first in a series of workshops within AGMF network. The second AGMF network workshop is planed in Lund University, Sweden in October 12–14, 2006, the third one in Chalmers University of Technology and University of Göteborg, Sweden in Spring, 2007, and the fourth one in University of Tartu, Estonia in 2008.

The intention of this and forthcoming AGMF workshops is to further understanding of fundamental role of non-commutative and non-associative structures in Mathematics, Theoretical and Mathematical Physics and beyond.

All the papers gathered in the proceedings are refereed contributions. Among the topics covered are operad and group theoretical methods, loops, quasi Lie algebras, colour Lie algebras and other generalizations and quasi deformations of Lie algebras, non-associative algebras, non-commutative dif-

ferential calculi and (co-)homological methods, non-commutative geometry, quantum groups and quantum algebras, group theoretical methods, Lie theoretical methods in differential equations and geometry and applications of these topics in Physics.

We expect that the papers in these proceedings will be useful for broad community of researchers and will stimulate further advances in the topics represented in the proceedings as well as in related directions and applications.

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