

Symmetries and Integrability of Difference Equations (SIDE VI)

Guest editors

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Foreword

This special issue of the Journal of Nonlinear Mathematical Physics is devoted to the sixth SIDE (Symmetries and Integrability of Difference Equations) meeting, held 19–24 June 2004 at the Kallvik Conference Centre in Helsinki, Finland. The papers gathered here are refereed contributions from researchers in the field of discrete integrable equations on topics related to the main themes of the SIDE VI meeting. This collection serves as more than just a proceedings for SIDE VI as many papers were submitted in response to a call for papers sent out soon after the meeting.

The first meeting of the SIDE series took place at Esterel, Canada, in 1994. Since then meetings have been held every two years: at Canterbury, UK (1996), Sabaudia, Italy (1998), Tokyo, Japan (2000), and Giens, France (2002). Proceedings have been published for each meeting. The second supplement to volume 10 of the Journal of Nonlinear Mathematical Physics was devoted to the SIDE V meeting in Giens. SIDE V and SIDE VI were both EuroConferences organised and supported by EURESCO. The two meetings were planned at the outset to emphasize different aspects of this expanding field of research. The SIDE V meeting emphasized *Discrete Painlevé equations and the solvability of difference equations* while the SIDE VI meeting emphasized *Analytic difference equations, special functions and quantum models on the lattice*. Specific themes of SIDE VI included the following.

- Analytic difference equations and spectral theory
- Difference bispectral problems
- Difference Galois theory
- Q-hypergeometric and elliptic modular functions
- Representation theory and orthogonal polynomials
- Algebraic curves and addition formulae of Abelian functions

- Discrete and quantum geometry
- Quantum models on the lattice
- Quantum mappings

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Conference organisers

Chair: Jarmo Hietarinta, University of Turku, Finland

Vice-chair: Frank Nijhoff, University of Leeds, UK

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