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5. O-operators and dendriform algebras 5.1. Rota-Baxter algebras and dendriform algebras; 5.2. From O-operators to dendriform algebras on the domains; 5.3. From O-operators to dendriform algebras on the ranges; 6. O-operators, Rota-Baxter operators, relative differential operators, dendriform algebras and AYBEs; 6.1. O-operators and Rota-Baxter operators: the second connection; 6.2. Relative differential operators and Rota-Baxter operators; 6.3. Characterizations of dendriform algebras in terms of bimodules and associativity; 6.4. Dendriform algebras and AYBEs; Acknowledgements; References

Irreducible Wakimoto-like Modules for the Affine Lie Algebra \mathfrak{gl}_n Yun Gao and Ziting Zeng 1. Introduction; 2. Finite dimensional case; 3. Affine case; References; Verma Modules over Generic Exp-Polynomial Lie Algebras Xiangqian Guo, Xuewen Liu and Kaiming Zhao; 1. Introduction; 2. Main results and applications; 3. Properties on generic exp-polynomial functions; 4. Verma modules over generic exp-polynomial Lie algebras; Acknowledgments; References; A Formal Infinite Dimensional Cauchy Problem and its Relation to Integrable Hierarchies G. F. Helminck, E. A. Panasenko and A. O. Sergeeva 1. Introduction 2. The finite dimensional setting; 3. The Cauchy problem: infinite dimensional case; 4. The Cauchy problem in integrable hierarchies; 4.1. Lower triangular matrices; 4.2. The Lax equations of the $(k, h, 0)$ -hierarchy; 4.3. The zero curvature form of the hierarchy; 4.4. Wave matrices for the $(k, h, 0)$ -hierarchy; 4.5. The relation with Cauchy problems; References; Partially Harmonic Tensors and Quantized Schur-Weyl Duality Jun Hu and Zhankui Xiao; 1. Introduction; 2. Quantized Enveloping Algebra and BMW Algebra; Acknowledgments; References

Quantum Entanglement and Approximation by Positive Matrices Xiaofen Huang and Naihuan Jing

Sommario/riassunto

The book aims to survey recent developments in quantum algebras and related topics. Quantum groups were introduced by Drinfeld and Jimbo in 1985 in their work on Yang-Baxter equations. The subject from the very beginning has been an interesting one for both mathematics and theoretical physics. For example, Yangian is a special example of quantum group, corresponding to rational solution of Yang-Baxter equation. Viewed as a generalization of the symmetric group, Yangians also have close connections to algebraic combinatorics. This is the proceeding for the International Workshop on Quantized Al