

数理解析研究所講究録 1480

Solvable Lattice Models 2004

- Recent Progress on Solvable Lattice Models -

可解格子模型の最近の進展

京都大学数理解析研究所

2006年4月

Solvable Lattice Models 2004
- Recent Progress on Solvable Lattice Models -

RIMS. Kyoto Univ., Kyoto, Japan,
20-23 July, 2004

Workshop held as a part of RIMS Project Research 2004
"Method of Algebraic Analysis in Integrable Systems"

Tuesday 20 July :

- 10:00 - 10:50 **B. McCoy (SUNY, Stony Brook),**
New development in the 8 vertex model.
- 11:00 - 11:50 **V. Terras (CNRS, Montpellier),**
Quantum inverse scattering approach to correlation functions
of the XXZ model I : Fundamental blocks.
- 11:50 - 14:00 Lunch Time
- 14:00 - 14:40 **M.J. Martins (Universidade Federal de Sao Carlos),**
 R -matrices and Spectrum of Vertex Models based on Superalgebras.
- 14:50 - 15:30 **O. Foda (Univ. Melbourne),**
Six Vertex Model with domain wall boundary condition
- 15:30 - 16:00 Tea Break
- 14:50 - 15:30 **Y. Takeyama (Univ. Tsukuba) ,**
A recursion formula for the correlation functions of an inhomogeneous
 XXX model.
- 16:50 - 17:30 **R. Sakamoto (Univ. Tokyo),**
Jack symmetric functions power sums and representation of
the Virasoro algebra.

Wednesday 21 July :

- 10:00 - 10:50 **C. Korff (SUNY, Stony Brook),**
Baxter's auxiliary matrices and the algebraic Bethe ansatz.
- 11:00 - 11:50 **N. Kitanine (Univ. Cergy-Pontoise) * :**
Quantum inverse scattering approach to correlation functions
of the XXZ model II : Two point correlation functions.
- 11:50 - 14:00 Lunch Time
- 14:00 - 14:40 **M. Batchelor (Australian National University),**
Real applications of solvable lattice models.
- 14:50 - 15:30 **M.J. Martins (Universidade Federal de Sao Carlos),**
 $SU(N)$ Vertex models with non-diagonal boundaries.
- 15:30 - 16:00 Tea Break
- 16:00 - 16:40 **J. Shiraishi (Univ. Tokyo),**
Commutative family of integral transformations and matrix elements
of the vertex operators for Baxter's eight-vertex model.
- 16:50 - 17:30 **T. Deguchi (Ochanomizu Univ.),**
Drinfeld polynomials associated with the XXZ Bethe states at roots of
unity and the sl_2 loop algebra.

Thursday 22 July :

- 10:00 - 10:50 **Y. Pugai (Landau Institute),**
On chiralities and descendants.
- 11:00 - 11:50 **J.-M. Maillet (CNRS, ENS Lyon),**
Quantum inverse scattering approach to correlation functions
of the XXZ model III : Master equation for correlation functions.

11:50 - 14:00 Lunch Time

14:00 - 14:40 **S. Kakei (Rikkyo univ.),**
Symmetry of elliptic root system and Askey-Wilson polynomials.

14:50 - 15:30 **K. Takemura (Yokohama City Univ.),**
On eigenvalues of Lamé operator.

15:30 - 16:00 Tea Break

16:00 - 16:40 **Y. Hara,**
Remarks on the Wakimoto representation for $U_q(\widehat{sl}_2)$.

16:50 - 17:30 **Y. Komori (Nagoya Univ.),**
Elliptic Ruijsenaars operators and elliptic hypergeometric integrals

Friday 23 July :

10:00 - 10:50 **M. Lashkevich (Landau Institute),**
Form factors of exceptional fields for two parametric family of integrable models.

11:00 - 11:50 **N.A. Slavnov (Steklov Mathematical Institute),**
Quantum inverse scattering approach to correlation functions of the XXZ model IV : Dynamical correlation functions.

11:50 - 14:00 Lunch Time

14:00 - 14:40 **H. Konno (Hiroshima Univ.),**
Fusion 8-vertex Model and Elliptic Quantum Group

14:50 - 15:30 **Y-H. Quano (Suzuka Univ. Medical Science),**
Form factors, correlation functions and vertex operators in the eight-vertex model at reflectionless points,

16:00 - 16:40 M.J. Rodriguez-Plaza (Univ. Comp. Madrid),
Reciprocal equations and "non-Bethe" states

◦ Informations of this conference are available from

<http://www.ms.u-tokyo.ac.jp/~mnishi/slm2004/index.html>.

