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Novel Development of Nonlinear Discrete Integrable Systems

edited by Junta Matsukidaira

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Research Institute for Mathematical Sciences
Kyoto University

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Preface

This volume of RIMS Kôkyûroku Bessatsu is a collection of research and survey articles which were contributed by invited speakers of the RIMS conference "Novel Development of Nonlinear Discrete Integrable Systems", which was held at the Research Institute for Mathematical Sciences (RIMS) of Kyoto University from September 2 through September 4, 2013.

This aim of the conference was to overview recent developments in discrete nonlinear integrable systems and related topics. There were given 14 lectures and 65 participants during the conference. It is our pleasure that this volume collects 12 contributions from the speakers.

All papers here have been refereed and are in their final forms. We would like to express our sincere gratitude to all the participants, invited speakers and RIMS secretaries who have made the conference successful and the referees of articles of this volume.

Editor: Junta Matsukidaira (Ryukoku University)

RIMS 研究集会「非線形離散可積分系の新展開」

日時　　2013 年 9 月 2 日 (月) ～ 2013 年 9 月 4 日 (水)
場所　　京都大学数理解析研究所 420 号室 (〒 606-8502 京都市左京区北白川追分町)
研究代表者　松木平 淳太 (龍谷大学理工学部)

プログラム

9 月 2 日 (月)

13:00 – 13:50　梶原 健司　Discrete mKdV flow on discrete space curves
13:50 – 14:40　須志田 隆道　Spiral Model and Cylindrical Model in Phyllotactic Voronoi Tilings
(20 分休憩)
15:00 – 15:50　西山 功一　かたちをつくる血管細胞動態と数理モデル化
15:50 – 16:40　松家 敬介　反応拡散系の超離散化可能な離散化について

9 月 3 日 (火)

9:30 – 10:20　渡辺扇之介　Min-Plus 代数とネットワーク
10:30 – 11:20　野邊 厚　周期離散戸田格子の幾何学的実現とそのトロピカル化
(20 分休憩)
11:40 – 12:30　津田 照久　Hermite-Pade 近似，モノドロミー保存変形，繰り返し超幾何積分
(昼食)
13:40 – 14:30　田中 利幸　圧縮センシング：ランダム行列の視点から
(20 分休憩)
14:50 – 15:40　山田 泰彦　離散 Painlevé 方程式の簡単な表示
15:50 – 16:40　広田 良吾　Solutions to Discrete Soliton Equations
(懇親会 18:00 –)

9 月 4 日 (水)

10:00 – 10:50　森田 健　線型 q-差分方程式の接続問題
11:00 – 11:50　儀島 伸　符号付き超離散化法について
(昼食)
13:00 – 13:50　金子 勇治　ランダム行列と周期箱玉系に於ける Poisson-Wigner 遷移
14:00 – 14:50　辻本 諭　オートマタ群と箱玉系

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