Symposium

'Bäcklund and Reciprocal Transformations

in

Modern Soliton Theory'

The Hong Kong Polytechnic University

May $24^{th} - 25^{th} 2011$

Venue: AG710

PROGRAMME

Tuesday, May 24th

8:45 a.m. – 9:00 a.m. **Opening**

Professor Liqun Qi

Head, Department of Applied Mathematics The Hong Kong Polytechnic University

Professor Alex Wai

Vice-President, Research Development The Hong Kong Polytechnic University

Session I (Chair: Nail Ibragimov)

9:00 a.m. – 10:00 a.m. Opening Lecture

Professor Colin Rogers

The Hong Kong Polytechnic University

and

Australian Research Council & Centre of Excellence for

Mathematics and Statistics of Complex Systems, University of New South Wales, Sydney, Australia

'Bäcklund and Reciprocal Transformations. Integrable Connections'

10:00 a.m. − 10:45 a.m. **Professor Q.P. Liu**

China University of Mining and Technology, Beijing, China

'Super- Symmetric Reciprocal Transformations'

10:45 a.m. – 11:15 a.m. Tea / Coffee Break

Session II (Chair: Sen-Yue Lou)

11:15 a.m. – 12:00 noon **Dr. Yehui Huang**

Tsinghua University, Beijing, China

'The New Integrable Deformations of Short Pulse and Sine Gordon

Equations & Their Solutions'

12:00 noon – 12:45 p.m. **Professor Zixiang Zhou** Fudan University, Shanghai, China 'Darboux Transformations for Two-Dimensional Elliptic Affine Toda Equations' Lunch: (Invited Speakers) 1:00 p.m. - 2:30 p.m.PolyU Staff Club Western Restaurant 5/F, Communal Building, PolyU Session III (Chair: Jon Nimmo) 2:30 p.m. – 3:15 p.m. **Professor Wolfgang Schief** University of New South Wales, Sydney, Australia 'Integrable Structure in (Discrete) Shell Membrane Theory' 3:15 p.m. - 4:00 p.m.**Professor Xing-Biao Hu** Chinese Academy of Sciences, Beijing, China 'Bilinear Bäcklund Transformations with Their Application' 4:00 p.m. – 4:30 p.m. Tea / Coffee Break Session IV (Chair: Michael Stallybrass) 4:30 p.m. – 5:15 p.m. **Professor Sandra Carillo** University of Rome, Italy 'Bäcklund Charts and Non-Commutative Soliton Solutions' 5:15 p.m. – 6:00 p.m. **Professor Sen-Yue Lou** Shanghai Jiao Tong University, China 'Symmetries and Symmetry Reductions Related to Bäcklund Transformations' 7:30 p.m. Banquet: Metropolis Harbour View Chinese Cuisine Harbour Plaza Metropolis Hotel

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Wednesday, May 25th

Session I (Chair: Xing-Biao Hu)

9:00 – 9:45 a.m. **Professor Nail Ibragimov**

Blekinge Institute of Technology, Sweden

'A.V. Bäcklund, Lie-Bäcklund Symmetries and Conservation Laws'

9:45 a.m. – 10:30 a.m. **Dr. Jon Nimmo**

University of Glasgow, Scotland, Great Britain

'Bound States of the Discrete Schrödinger Equation and Solutions of

the Discrete and Ultra Discrete KdV Equations'

10:30 a.m. – 11:00 a.m. Tea / Coffee Break

Session II (Chair: Zixiang Zhou)

11:00 a.m. – 11:45 a.m. **Professor Junxiao Zhao**

Graduate University of Chinese Academy of Science, Beijing, China 'The Application of Pfaffians in Nonlinear Evolution Equations'

11:45 a.m. – 12:30 p.m. **Dr. Adam Szereszewski**

University of Warsaw, Poland

'From Two-Dimensional Surfaces to Solutions of Einstein's Field

Equations'

Meeting Closure Professor Colin Rogers

1:00 p.m. – 2:30 p.m. Lunch: (Invited Speakers)

PolyU Staff Club Western Restaurant

5/F, Communal Building, PolyU