

**2007 Annual Workshop on Mathematical Physics
Kioloa Community Centre**

TIMETABLE

Tuesday, December 11

- 14:00** **Bus departure for Kioloa**
[bus departs from Burgmann College]
- 17:00** **Check-in Kioloa Beach Holiday Park**
- 18:00** **BBQ at Coastal Patrol**

Wednesday, December 12

- 09:00** Sergey Sergeev (ANU)
Quantum geometry
- 10:00** Peter Finch (Queensland)
Finite group algebras and solutions to the Yang-Baxter equation
- 10:30** **Morning tea**
- 11:00** Tetsuo Deguchi (Ochanomizu University)
The $sl(2)$ loop algebra symmetry of the six-vertex model at roots of unity and the superintegrable chiral Potts model
- 12:00** Karen Dancer (Queensland)
A Lax operator for $U_q[osp(m|n)]$
- 12:30** **Lunch**
- 14:00** Discussion topic:
Anyons and fractional statistics
- 15:00** **Afternoon tea**

15:30 Minoru Takahashi (Toho University)
Simplified thermodynamic Bethe ansatz equations

16:30 Discussion topic:
Thermodynamics of integrable models

18:30 **Dinner at Kioloa Beach Holiday Park**

Thursday, December 13

09:00 Nick Halmagyi (University of Chicago)
Generalized Kähler potentials for supergravity

10:00 Mark Fisher (Monash)
The Einstein Yang-Mills equations

10:30 **Morning tea**

11:00 Jon Links (Queensland)
Stationary state symmetries of a periodically kicked ion in a trap

12:00 Eric Nordenstam (KTH, Stockholm)
Eigenvalues of GUE minors

12:30 **Lunch**

14:00 Discussion topic:
Mathematical foundations of string theory

15:00 **Afternoon tea**

15:30 Josh Garretson (ANU)
T-duality and Generalized Geometry

16:00 Jingsong He (University of Science and Technology of China)
The Virasoro constraints of the BKP hierarchy

16:30 Discussion topic:
Dualities in string theory and field theory

18:30 **Dinner at Kioloa Beach Holiday Park**

Friday, December 14

- 12:00** **Lunch at Kioloa Beach Holiday Park**
- 14:00** Discussion topic:
Computational approaches in quantum many-particle systems
- 15:00** **Afternoon tea**
- 15:30** James McGuire (Florida Atlantic University)
Implementation of phase estimation in delta interaction
- 16:00** Arjan Kundu (Saha Institute of Nuclear Physics)
Nonlinearizing linear equations to integrable systems including a new integrable hierarchy
- 16:30** Mile Gu (Queensland)
Is more really different? Non-computable properties of macroscopic systems
- 17:00** Discussion
- 18:30** **Dinner at Kioloa Beach Holiday Park**

Saturday, December 15

- 09:30** **Bus departure for Canberra**
- 12:30** **Arrival Canberra, ANU campus**