

# Applications of the Renormalization Group Methods in Mathematical Sciences Symposium

We invite you to the following symposium which is organized as one of the joint ventures of the Research Institute for Mathematical Sciences of Kyoto University.

organizer Keiichi R. Ito  
(Faculty of Science and Tech., Setsunan Univ.)  
co-organizer Akira Sakai  
(Faculty of Sciences, Hokkaido Univ.)

date and time: 2011 September 12 (Mon.) 13:00 ~ 14 (Wed.) 16:50  
place room No.420, Res.Inst.Math.Sci., Kyoto Univ.  
Kitashirakawa, Sakyo-ku, Kyoto

programme (as of August 22)

## Sept. 12 (Mon.)

13:00-13:50 Tomohiro Sasamoto(Chiba Univ.)  
A replica analysis of the 1D KPZ equation  
14:00-14:50 Shuji Watanabe (Gunma Univ.)  
Temperature dependence of the solution of the BCS  
gap equation  
15:00-15:50 Toshimitu Takaesu(Kyushu Univ.)  
Functiobal Integral rep. for a relativistic Schödinger  
operator coupled with Scalar Bose Field  
16:00-16:50 Yoshifumi Ito (Tokushima)  
Angular Momentum and its Expectation value

## Sept. 13 (Tue.)

10:00-10:50 C.Newman (Courant Inst. Math.Sci., NYU)  
Ground State of the Two-Dimensional Spin Glass  
11:00-11:50 P.Contucci (Bologna)  
Stability of the Spin Glass Phase Under Perturbation

- Sept. 13** (contd.)
- 13:00 -13:50 Keiichi R. Ito (Setsunan Univ.)  
RG flow of 2D  $O(N)$  spin model and absence of phase transitions
- 14:00-14:50 Teiji Kunihiro (Kyoto)  
Derivation of Relativistic Hydrodynamic Equations for a viscous fluid based on the RG method
- 15:00-15:50 Fumio Hiroshima (Kyushu)  
Spectrum of a scalar quantum field model on a Lorentzian Manifold
- 16:00-16:50 Itaru Sasaki (Shinshu)  
Enhanced Binding for the Semi-relativistic Nelson Model
- 18:00— welcome party (Japanese cuisine ?)

**Sept. 14 (Wed)**

- 10:00-10:50 R.Sun (NUS, Singapore)  
Brownian Web in the Scaling Limit of Supercritical Oriented Percolation in Dimension 1+1
- 11:00-11:50 C.Giardina (Modena)  
Exactly Solvable Models of Heat Conduction
- 13:00-13:50 Federico Camia (VU Amsterdam)  
Critical Ising Models and Measure Ensembles
- 14:00-14:50 Masanobu Takei (Osaka Elect-Comm. Univ.)  
Yasunari Higuchi (Kobe )  
Scaling relations for percolation in the 2D high temperature Ising model
- 15:00-15:50 Nobuo Yoshida (Kyoto)  
Linear Stochastic Growth Models
- 16:00-16:50 T.B.A.  
Open Problems in the Future (provisional)

Visit

<http://www.setsunan.ac.jp/mpg/confs/rims11/renom11j.html>  
to see the abstracts of these talks and the latest program.

Welcom party : September 13, 6:00 pm

Ganko Nijou-en (Japanese Cuisine)

tel: 075-223-3456

address: Naka-Gyo-Ku, Kiya-Machi-Dori, 2Jou-Kudaru  
(about 5,000 yen)

Proceedings: send your contribution by December 31, 2011