Stochastic Analysis
Program

Date: 7th -11th   September, 2015
Venue: Room 401, Graduate School of Science Bldg. No. 6, Kyoto University

7th (Mon)
8:30-9:50 Registration
9:50- Welcome speech
  Shigeru Mukai (RIMS director)
10:00-10:45
  Wendelin Werner (ETH Zurich)
  Loop-soup cluster decompositions and Gaussian fields
11:00-11:45
  Tadahisa Funaki (University of Tokyo)
  Scaling limits for random fields with a pinning effect
  (Lunch)
13:15-14:00
  Makiko Sasada (University of Tokyo)
  Stochastic approach to the derivation of macroscopic energy
  diffusion in Hamiltonian systems
  (Coffee)
 Itô Memorial Lectures:
14:30-15:10 David Elworthy (University of Warwick)
  Professor Kiyosi Itô and some aspects of his mathematical legacy
15:20-16:00 Daniel Stroock (MIT)
  Another look at Kolmogorov's and related hypoelliptic operators
16:20-17:00 Masatoshi Fukushima (Osaka University)
  Mathematical legacy of Itô sensei

8th (Tues)
 9:30-10:15
  Terry Lyons (University of Oxford)
  The signature of a rough path – uniqueness
10:30-11:15
  Shigeo Kusuoka (University of Tokyo)
  Malliavin calculus and diffusion equation with Dirichlet boundary
  condition
  (Coffee)
11:45-12:30
  Shigeki Aida (Tohoku University)
  On solutions to reflected rough differential equations

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   (Lunch)
14:00-14:45
   Shige Peng (Shandong University)
   Expectation weighted Sobolev spaces, BSDE and path dependent PDE
15:00-15:45
   Martin Barlow (University of British Columbia)
   Scaling limits of the uniform spanning tree
   (Coffee)
16:15-17:00
   Ryoki Fukushima (Kyoto University)
   Fluctuation of spectra in random media revisited

9th (Wed)
9:30-10:15
   Alain-Sol Sznitman (ETH Zurich)
   On some disconnection problems
10:30-11:15
   Tomoyuki Shirai (Kyushu University)
   Lifetime of persistent homology and minimum spanning acycle in
   random topology
11:30-12:15
   Gérard Ben Arous (Courant Institute)
   The ant in a labyrinth, recent progress
13:30-18:00 Excursion
18:30-20:30 Banquet

10th (Thurs)
9:30-10:15
   Martin Hairer (University of Warwick)
   Regularity structures
10:30-11:15
   Masanori Hino (Osaka University)
   Toward stochastic differential calculus based on measurable Riemannian
   structures
   (Coffee)
11:45-12:30
   Naotaka Kajino (Kobe University)
   The Laplacian on the Apollonian gasket and its Weyl type eigenvalue
   asymptotics
   (Lunch)
14:00-14:45
   Zhen-Qing Chen (University of Washington)
   Obliquely reflected Brownian motion

15:00-15:45
  Takashi Kumagai (Kyoto University)
  Harnack inequalities and local CLT for the polynomial lower tail random
  conductance model
  (Coffee)
16:15-17:00
  Kouji Yano (Kyoto University)
  Several limit theorems for Markov processes via convergence of
  excursions

11th (Fri)
9:30-10:15
  S.R.Srinivasa Varadhan (Courant Institute)
  Limit theorems for sums of polynomials of random variables with fat
  tails
10:30-11:15
  Kazumasa Kuwada (Tokyo Institute of Technology)
  Coupling by reflection of Brownian motions on metric measure spaces
  with a lower Ricci curvature bound
  (Coffee)
11:45-12:30
  Karl-Theodor Sturm (University of Bonn)
  Optimal transport, Brownian motion, and super-Ricci flow for metric
  measure spaces
  (Lunch)
14:00-14:45
  Hirofumi Osada (Kyushu University)
  Schemes and tails of infinite-dimensional stochastic equations with
  symmetry