

Rough Paths: Theory and Applications

Monday January 27, 2014

- 8:00–8:55 *Check-In/Light Breakfast (Hosted by IPAM)*
- 8:55–9:00 *Welcome and Opening Remarks*
- 9:00–9:50 **Ivan Corwin** (Massachusetts Institute of Technology)
KPZ line ensemble
- 10:00–10:30 *Break*
- 10:30–11:20 **Milton Jara Valenzuela** (Instituto Nacional de Matemática Pura e Aplicada (IMPA))
Anomalous fluctuations of a model of heat conduction
- 11:30–12:20 **Jeremy Quastel** (University of Toronto)
- 12:30–2:00 *Lunch (on your own)*
- 2:00–2:50 **Fabrice Baudoin** (Purdue University)
Smoothing effect of rough differential equations driven by fractional Brownian motions
- 3:00–3:30 *Break*
- 3:30–4:20 **Thomas Cass** (Imperial College)
Some illustrative applications of rough path theory: Gaussian analysis, interacting particle systems and analysis on manifolds
- 4:30–6:00 *Poster Session & Reception (Hosted by IPAM)*

Tuesday January 28, 2014

- 8:00–9:00 *Continental Breakfast*
- 9:00–9:50 **Lorenzo Zambotti** (Université de Paris VI (Pierre et Marie Curie))
The generalized KPZ equation
- 10:00–10:30 *Break*

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- 10:30–11:20 **Arnaud Debussche** (Ecole Normale Supérieure de Rennes)
Invariant Measures for Stochastic Conservation Laws
- 11:30–12:20 **Leonid Mytnik** (Technion - Israel Institute of Technology)
Uniqueness and non-uniqueness for stochastic heat equations with Holder continuous coefficients
- 12:30–2:00 *Lunch (on your own)*
- 2:00–2:50 **Hiroshi Kawabi** (Okayama University)
Stationary phase for rough differential equations
- 3:00–3:30 *Break*
- 3:30–4:20 **Etienne Pardoux** (Université d'Aix-Marseille)
Invariant measure selection by noise
- 4:30–5:20 **Nicolas Perkowski** (Université de Paris IX (Paris-Dauphine))
Paracontrolled differential equations

Wednesday January 29, 2014

- 8:00–9:00 *Continental Breakfast*
- 9:00–9:50 **Horatio Boedihardjo** (University of Oxford)
The uniqueness of signature problem
- 10:00–10:30 *Break*
- 10:30–11:20 **Sebastian Riedel** (Technische Universität Berlin)
Gaussian rough paths, transportation-cost inequalities and multilevel Monte Carlo
- 11:30–12:20 **Joscha Diehl** (Technische Universität Berlin)
Mixed rough differential equations and Gaussian integrability

Thursday January 30, 2014

- 8:00–9:00 *Continental Breakfast*
- 9:00–9:50 **Jan Maas** (University of Bonn)
Approximating rough stochastic PDEs
- 10:00–10:30 *Break*

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- 10:30–11:20 **Samy Tindel** (Université de Lorraine)
Some estimates on the parabolic Anderson model
- 11:30–12:20 **Yuzuru Inahama** (Nagoya University)
Large deviation principle for certain spatially lifted Gaussian rough path
- 12:30–2:00 *Lunch (on your own)*
- 2:00–2:50 **Peter Imkeller** (Humboldt-Universität)
A Fourier analytic approach to rough paths
- 3:00–3:30 *Break*
- 3:30–4:20 **Bruce Driver** (University of California, San Diego (UCSD))
Constrained Rough Paths
- 4:30–5:20 **David Kelly** (University of North Carolina)
Fast-Slow systems with chaotic noise

Friday January 31, 2014

- 8:00–9:00 *Continental Breakfast*
- 9:00–9:50 **Christian Litterer** (École Polytechnique)
Kusuoka-Stroock gradient bounds for the filtering equation
- 10:00–10:30 *Break*
- 10:30–11:20 **Paul Gassiat** (Technische Universität Berlin)
Pathwise solutions for fully nonlinear SPDEs
- 11:30–12:20 **Ismael Bailleul** (Université de Rennes I)
Rough flows
- 12:30–2:00 *Lunch (on your own)*
- 2:00–2:50 **Harald Oberhauser** (University of Oxford)
Sampling Brownian increments with bounded Levy areas
- 3:00–3:30 *Break*
- 3:30–4:20 **Terence Lyons** (University of Oxford)
The expected signature of a stochastic process

