

The ZiF-research group: "Stochastic modeling in the sciences"

Opening conference

**"Stochastic partial differential equations and random media:
From theory to applications I"**

(April 4-9, 2005)

Schedule

Monday, April 4:

8.50h-9.00h: Opening

9.00h - 9.50h: G.C. Papanicolaou (Stanford): "Imaging in random media"

10.00h – 10.50h: L.A. Pastur (Paris 7 and Kharkov): "Limiting laws of fluctuations
for linear eigenvalue statistics of random matrices"

11.00h - 11.30h: Coffee break

11.30h – 12.20h: M. Sanz-Solé (Barcelona): "Sample paths of second order SPDEs"

12.30h – 14.15h: Lunch

14.15h – 15.05h: C. Mueller (Rochester): "The speed of a random traveling wave"

15.15h - 16.05h: A. Millet (Paris 1): "Rough path analysis of the fractional Brownian
motion"

16.15h-17.00h: Coffee break

17.00h -- 17.50h: L. Zambotti (Milano): "A SPDE related to the reflected Brownian
motion"

Tuesday, April 5:

9.00h - 9.50h: A.S. Sznitman (Zürich): "An invariance principle for isotropic diffusions in random environment"

10.00h - 10.50h: P.A. Tass (FZ Jülich): "Model-based development of desynchronizing brain"

11.00h - 11.30h: Coffee break

11.30h - 12.20h: G. Da Prato (SNS Pisa): "Coupling for some partial differential equations driven by white noise"

12.30h - 14.15h: Lunch

14.15h - 15.05h: I. Gyöngy (Edinburgh): "On numerical solutions of SPDEs"

15.15h - 16.05h: M. Romito (Firenze): "A representation for the solutions to some PDE via pruned trees"

16.15h-17.00h: Coffee break

17.00h - 17.50h: R. Stasi (SNS Pisa): "A maximum principle for infinite dimensional diffusion equations "

Wednesday, April 6:

9.00h - 9.50h: B. Maslowski (Prague): "Exponential and V-uniform ergodicity for SPDEs"

10.00h – 10.50h: H. Bolterauer (Giessen): "Directed binding. A novel physical mechanism that describes the directional motion of two-headed kinesin motor protein. A pathway between stochastic physics and chemistry"

11.00h - 11.30h: Coffee break

11.30h – 12.20h: V.A. Malyshev (INRIA Rocquencourt): "When a stochastic dynamics is called cluster dynamics?"

12.30h – 14.15h: Lunch

Free afternoon!

Thursday, April 7:

9.00h - 9.50h: F. Flandoli (Pisa): "Stochastic models of turbulence"

10.00h – 10.50h: A. Debussche (Rennes 1): "Random modulations of solutions for the stochastic Korteweg-de Vries equation"

11.00h - 11.30h: Coffee break

11.30h – 12.20h: A. Wakolbinger (Frankfurt a.M.): "The structured coalescent in a random background and the ancestral partition in a selective sweep"

12.30h – 14.15h: Lunch

Special afternoon devoted to the 20th anniversary of the BiBoS-Center

14.15h – 15.05h: F. Guerra (Rome 1): "The mean field spin glass model: a mystery about to be solved"

15.15h - 16.05h: Z. Brzezniak (Hull): "Large deviations for stochastic nonlinear heat equation"

16.15h-17.00h: Coffee break

17.00h -17.50h: Th. Sturm (Bonn): "Mass transportation, equilibration for nonlinear diffusions, and Ricci curvature"

18.30h: Dinner

Friday, April 8:

9.00h -- 9.50h: S. Cerrai (Firenze): "On the Smolukowski-Kramers approximation for a class of SPDEs"

10.00h – 10.50h: T.-S. Zhang (Manchester): "Flows of stochastic differential equations on S^d "

11.00h - 11.30h: Coffee break

11.30h – 12.20h: E. Hausenblas (Salzburg): "Numerical approximation of the stochastic Navier-Stokes equation"

12.30h – 14.15h: Lunch

14.15h – 15.05h: G. Kersting (Frankfurt a.M.): "Branching in random environment – phase transition"

15.15h - 16.05h: K.D. Elworthy (Warwick): "Regularity of conditional expectations and the Markov uniqueness problem in path spaces"

16.15h: End