

Nonlinear Partial Differential Equations, Dynamical Systems and Their Applications

–in honor of Professor Hiroshi Matano on the occasion of his 60th birthday–

Date: September 3(Mon) - 6(Thu), 2012

Place: Room 420, Research Institute for Mathematical Sciences, Kyoto University, JAPAN

September 3 (Mon)

- 9:50 – 10:00 Opening
- 10:00 – 10:50 Paul Rabinowitz (Univ. Wisconsin-Madison / POSTECH)
On an Allen-Cahn model of phase transitions
- 11:00 – 11:50 Shuichi Jimbo (Hokkaido University)
Domain variation and electromagnetic frequencies
- Lunch
- 14:00 – 14:50 Hisashi Okamoto (Kyoto University)
Pattern formation of the Kolmogorov flows at high Reynolds numbers
- 15:00 – 15:50 Frank Merle (University of Cergy-Pontoise, IHES)
Global solution for three dimension critical wave equation
- 16:10 – 17:00 Yoshihisa Morita (Ryukoku University)
Reaction-diffusion systems with conservation of mass

September 4 (Tue)

- 10:40 – 11:10 Toshiko Ogiwara (Josai University)
Convergence results in order-preserving dynamical systems and applications to a molecular motor system
- 11:20 – 12:10 Jong-Shenq Guo (Tamkang University)
On a free boundary problem for a two-species weak competition system
- Lunch
- 14:00 – 14:50 Shin-Ichiro Ei (Kyushu University)
Dynamics of localized solutions for reaction-diffusion systems on two-dimensional domain
- 15:00 – 15:50 Xing Liang (Univ of Science and Technology of China)
The spreading speeds for the integral operator without compactness

16:10 – 17:00 Jaeyoung Byeon (POSTECH)
Variational construction of solutions with clustering multi-bumps for nonlinear elliptic problems

September 5 (Wed)

9:30 – 10:20 Hiroshi Kokubu (Kyoto University)
Topological computation method for global dynamics and its application

10:40 – 11:10 Toshiyuki Ogawa (Meiji University)
Triple degeneracy in 3-component reaction-diffusion system

11:20 – 12:10 David Kinderlehrer (Carnegie Mellon University)
The role of entropy in the evolution of microstructural networks

Lunch

14:00 – 14:50 Peter Polacik (University of Minnesota)
Symmetry and the nodal structure of nonnegative solutions of elliptic equations

15:00 – 15:50 Marek Fila (Comenius University)
Rate of convergence to Barenblatt profiles for the fast diffusion equation

16:10 – 17:00 Tadahisa Funaki (The University of Tokyo)
Stationary measures of the KPZ equation for growing interfaces with fluctuations

September 6 (Thu)

9:30 – 10:20 Yihong Du (University of New England)
Regularity and long-time behavior of the free boundary in nonlinear Stefan problems

10:30 – 11:20 Hirokazu Ninomiya (Meiji University)
Diffusion-induced bifurcations from the stationary solutions and infinity

11:30 – 12:20 Bendong Lou (Tongji University)
A convergence result for a problem with free boundary conditions and its applications

Lunch

14:00 – 14:50 Bernold Fiedler (Free University Berlin)
Reaction, advection, and diffusion on the circle

15:00 – 15:50 Henri Berestycki (EHESS - Paris)
 Propagation driven by a line in reaction-diffusion equations

15:50 Closing

See <http://nlpde.w3.kanazawa-u.ac.jp/rims2012/> for the detailed information.

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