

Variational Problems and Related Topics

Research Institute for Mathematical Sciences, Kyoto University,

Organizer: Futoshi Takahashi (Osaka City Univ.)

Vice Organizer: Takashi Suzuki (Osaka Univ.)

Date: June 20 (Tue) 14:00 ~ June 22 (Thu) 12:20, 2006

**Place: Research Institute for Mathematical Sciences,
4F Lecture Room 420, Kyoto University,**

June 20 (Tue)

14:00~14:50 Nikos Kavallaris (Osaka Univ.)

Asymptotic analysis and estimates of blow-up time for the radial symmetric semilinear heat equation in the open-spectrum case

15:00~15:50 Yoshitsugu Kabeya (Osaka Prefecture Univ.)

Decay rates of the derivatives of the solutions to the heat equation and related topics (joint work with Kazuhiro Ishige (Tohoku Univ.))

16:10~17:00 Kimie Nakashima (Tokyo Univ. of Marine Sci. and Tech.)

Radial and nonradial steady-states with clustering layers in Allen-Cahn equation

June 21 (Wed)

9:30~10:20 Yohei Sato (Waseda Univ.)

Multi-peak positive solutions for nonlinear Schrödinger equations with critical frequency

- 10:30~11:20 Yoshihito Oshita (Okayama Univ.)
Singular limit problem for some elliptic systems
- 11:30~12:20 Naoki Shioji (Yokohama National Univ.)
A multiplicity result including a sign-changing solution
for an elliptic problem in \mathbf{R}^N
- 14:00~14:50 Takeshi Isobe (Tokyo Institute Tech.)
Topology of Sobolev bundles
- 15:00~15:50 Georg Weiss (Tokyo Univ.)
A parabolic free boundary problem with Bernoulli type condition
on the free boundary
(joint work with John Andersson (Max Planck Institute))
- 16:10~17:00 Sumio Yamada (Tohoku Univ.)
Minimal singular subvarieties as solutions of Steiner and Plateau problems
- 18:30~ Banquet (place undecided)

June 22 (Thu)

- 9:30~10:20 Hiroshi Ohtsuka (Miyazaki Univ.)
Some analytic aspects of the mean field equation
for arbitrarily-signed vortices
- 10:30~11:20 Gershon Wolansky (Technion Haifa)
Dynamics of adhesive particles and optimal transportation of mass
- 11:30~12:20 Takashi Suzuki (Osaka Univ.)
Mass quantization of the equilibrium self-gravitating fluid