Progress in Variational Problems
- New Trends of Geometric Gradient Flow
and Critical Point Theory -

RIMS conference

Organizers: Futoshi Takahashi   (Osaka City Univ.),
Michinori Ishiwata (Fukushima Univ.)
Shinya Okabe   (Iwate Univ.)

June 7 (Mon) - June 9 (Wed), 2010

Research Institute for Mathematical Sciences (RIMS),

4F Lecture Room 420, Kyoto University,

Session 1   New Trends of Geometric Gradient Flow   Session organizer: S. Okabe

June 7 (Mon)

10:00∼10:50   Matteo Novaga   Padova

Variational evolutions in image analysis

11:00∼11:50   Takeyuki Nagasawa   Saitama Univ.

Gradient flow for the Helfrich variational problem

13:00∼13:50   Yoshihito Kohsaka   Muroran Institute Tech.

On evolving hypersurfaces with boundaries by mean curvature flow

14:00∼14:50   Shigetoshi Yazaki   Miyazaki Univ.

Various gradient flows in the plane — modeling, applications and polygonal analogues

15:00∼15:50   Yohei Sato   OCAMI

The existence and non-existense for the nonlinear Schrödinger equations

16:00∼16:50   Boyan Sirakov   Paris Ouest

Liouville theorems for elliptic inequalities and systems

June 8 (Tue)

10:00∼10:50   Matteo Novaga   Padova

Evolution of a relativistic string

11:00∼11:50   Yoshihiro Tonegawa   Hokkaido Univ.

A new two-phase fluid problem with surface energy

Session 2   New Trend of Critical Point Theory   Session organizer: M. Ishiwata

13:30∼15:00   Andrzej Szulkin   Sweden Univ.

The method of Nehari manifold revisited

15:10∼16:00   Tatsuya Watanabe   Kyoto Sangyo Univ.)

Dual variational approach to a quasilinear Schrödinger equation

arising in plasma physics

16:10∼17:00   Hiroshi Ohtsuka   Miyazaki Univ.

On the variational structure of the Gel'fand problem

18:30∼   Banquet

June 9(Wed)

9:30∼10:20 Hidemitsu Wadade   National Taiwan Univ.

Minimizing problems for the Hardy-Sobolev type inequality

with the singularity on the boundary

10:30∼11:20 Andrzej Szulkin   Sweden Univ.

A semilinear Schrödinger equation with Aharonov-Bohm magnetic potential

11:30∼12:20 Naoki Shioji   Yokohama National Univ.

Multiple sign-changing solutions for an asymptotically linear elliptic problem