# RIMS workshop

## "Analysis on Shapes of Solutions to Partial Differential Equations"

June 27 (Mon.) – 29 (Wed.), 2018 Room 420, Research Institute for Mathematical Science (RIMS), Kyoto University

> Organizers: Shinya Okabe (Tohoku University) Michiaki Onodera (Tokyo Institute of Technology)

## --Program--

### Jun. 27th Wed.

13:45 Opening

13:50 – 14:40 Masato Hashizume (Ehime University)

Existence and nonexistence of ground state solution for semilinear elliptic equation involving Hardy-Sobolev critical exponent

15:00 – 15:50 Qing Liu (Fukuoka University)

Large exponent behavior of power-type evolution equations and applications

16:10 – 17:00 Masashi Aiki (Tokyo University of Science)

On the interaction of a pair of coaxial circular vortex filaments

#### Jun. 28th Thur.

10:00 – 10:50 Tomoya Kemmochi (Nagoya University)

Energy dissipative numerical schemes for gradient flows of planar curves

11:10 – 12:00 Alexandra Gilsbach (RWTH Aachen University)

Critical points of knot energies

12:00 - 13:50 Lunch

13:50 – 14:40 Kazuhiro Ishige (The University of Tokyo)

A supercritical scalar field equation with a forcing term

15:00 – 15:50 Miyuki Koiso (Kyushu University)

Uniqueness for closed embedded non-smooth hypersurfaces with constant anisotropic mean curvature

16:10 – 17:00 Hans-Christoph Grunau (Otto-von-Guericke-Universität)

Minimising a relaxed Willmore functional for graphs subject to Dirichlet boundary conditions

18:30 – Banquet

### Jun. 29th Fri.

10:00 – 10:50 Kazuhiro Kurata (Tokyo Metropolitan University)

Construction and stability analysis of 1-peak symmetric stationary solutions to the Schnackenberg model with heterogeneity

11:10 – 12:00 Masahiko Shimojo (Okayama University of Science)

The center problem of reaction diffusion systems by the Darboux method and the Lie symmetries

12:00 Closing

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