# Regularity and Singularity for Geometric Partial Differential Equations and Conservation Laws

at Resarch Institute of Mathematical Science

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Date and Time: Wednesday, June 13, 2012; 14:00-Friday, June 15, 2012; 14:50

Place : kyoudai-SuriKaisekiKenkyujo Room 420, Kitashirakawa-Oiwake-cho,

Sakyo-ku, Kyoto 606-8502,

#### Schedule

#### June 13, Wednesday

- 14:00–14:50 Atsushi Tachikawa (Tokyo University of Science)
  - <sup>r</sup> Partial regularity of p(x)-harmonic maps  $\Box$
- 15:00–15:50 Tuomo Kuusi (Aalto University, Columbia University)
  - Update to nonlinear potential theory
- 16:10–17:00 Yasuhito Miyamoto (Keio University)
  - $^{\mathsf{\Gamma}}$  Structure of the positive solutions for supercritical elliptic equations in a ball  $\, {\sf \lrcorner}$

#### June 14, Thursday

- 10:00–10:50 Masaru Ikehata (Gunma University)
  - Figure 2 Extracting the geometry of an acoustic enclosure from dynamical back-scattering data: an inverse problem for the wave equation
- 11:00-11:50 Hiroyuki Takamura (Future University Hakodate)
  - $^{\mathsf{\Gamma}}$  Almost global solutions of semilinear wave equations with the critical exponent in high dimensions  $_{\mathsf{J}}$

Lunch

#### 14:00–14:50 Michinori Ishiwata (Fukushima University)

 $^{\sf r}$  Asymptotic behavior of solutions for semilinear parabolic equation with critical Sobolev exponent  $\, {\sf \lrcorner} \,$ 

# 15:00–15:50 Toru Kan (Tohoku University)

 $^{\sf \Gamma}$  On non-radially symmetric solutions of the Liouville-Gel'fand equation on a two-dimensional annular domain  $_{\sf J}$ 

## 16:10–17:00 Nakao Hayashi (Osaka University)

 $^{\mathsf{\Gamma}}$  Scattering problem for nonlinear Klein-Gordon equations in 2d  $_{\mathsf{J}}$ 

#### June 15, Friday

#### 10:10–11:00 Fumihiko Nakano (Gakushuin University)

<sup>r</sup> Level statistics for one-dimensional random Schroedinger operator <sub>J</sub>

### 11:10–12:00 Masayoshi Takeda (Tohoku University)

 $^{\mathsf{\Gamma}}$   $L^p$ -independence of growth bounds of symmetric Markov semigroups and its applications  $_{\mathsf{J}}$ 

Lunch

## 13:00-13:50 Sachiko Ishida (Tokyo University of Science)

 $^{\mathsf{\Gamma}}$  On the solvability of Keller-Segel systems with porous medium-type diffusion  ${\,{}_{\mathtt{J}}}$ 

## 14:00–14:50 Tsukasa Iwabuchi (Chuo University)

 $^{\mathsf{\Gamma}}$  Ill-posedness for the nonlinear Schrödinger equations in one space dimension  $_{\mathsf{L}}$ 

This symposium is sponsored by the JSPS grant in aid for scientific research;

Basic Research C #24540215 (M.Misawa)

Basic Research A #20244009 (T.Ogawa)

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