

数理解析研究所講究録 1640

非線形発展方程式と現象の数理

京都大学数理解析研究所

2009年4月

RIMS Kôkyûroku 1640

*Nonlinear Evolution Equations
and Mathematical Modeling*

April, 2009

Research Institute for Mathematical Sciences

Kyoto University, Kyoto, Japan

This is a report of research done at the Research Institute for Mathematical Sciences, Kyoto University. The papers contained herein are in final form and will not be submitted for publication elsewhere.

Symposium on
Nonlinear Evolution Equations and
Mathematical Modeling

Organized by Yoshio YAMADA
(Waseda University)

Date & Time: November 17, 2008 (Monday) 13:20~
November 19, 2008 (Wednesday) 12:20

Place: Research Institute for Mathematical Sciences,
Kyoto University

Program

November 17 (Monday)

- 13:20~14:10 Ken SHIRAKAWA (Kobe University)
Stability analysis for two-dimensional phase transition systems generated
by linear growth energies
- 14:20~15:10 Hiroki OHWA (Waseda University) and
Kyoko KISHI (Japan Aerospace Exploration Agency)
On the existence of shock curves in 2×2 hyperbolic systems of conservation
laws
- 15:30~16:20 Harunori MONOBE (Tohoku University)
Local existence of classical solutions of free-boundary problem related to
the slime mould
- 16:30~17:20 Goro AKAGI (Shibaura Institute of Technology)
Doubly nonlinear evolution equations and dynamical systems

November 18 (Tuesday)

- 10:00~10:50 Kentaro YOSHII (Tokyo University of Science)
Abstract approach to Schrödinger evolution equations
- 11:00~11:50 Shingo TAKEUCHI (Kogakuin University)
Coincidence sets in quasilinear problems of logistic type
- 11:50~13:20 — Lunch —
- 13:20~14:10 Tsuyoshi YONEDA (Tokyo University)
Global solvability of the Navier-Stokes equations in a rotating frame with spatially almost periodic data
- 14:20~15:10 Shota SATO (Tohoku University)
Global solutions with a moving singularity for a semi linear parabolic equation
- 15:30~16:20 Kousuke KUTO (Fukuoka Institute of Technology)
Bifurcation structure of steady-states for an adsorbate-induced phase transition model
- 16:30~17:20 Hisashi OKAMOTO (Kyoto University)
On a generalization of the Constantin-Lax-Majda equation
- Banquet —

November 19 (Wednesday)

- 9:30~10:20 Shinnosuke OHARU (Chuo University) and
Hiroshi WATANABE (Chuo University)
Unique existence of BV-entropy solutions for strongly degenerate convective diffusion equations
- 10:30~11:20 Noriaki UMEDA (Tokyo University)
On instant blow-up for semilinear heat equations with growing initial data
- 11:30~12:20 Hideaki FUJIMURA (Osaka University) and
Atsushi YAGI (Osaka University)
Asymptotic behavior of solutions for BCF model describing crystal surface growth

非線形発展方程式と現象の数理
 Nonlinear Evolution Equations and Mathematical Modeling
 RIMS 研究集会報告集

2008年11月17日～11月19日
 研究代表者 山田 義雄 (Yoshio Yamada)

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