

RIMS Workshop
**Mathematical Analysis of Pattern Formation
Arising in Nonlinear Phenomena**

Organizers : Yoshihito Oshita (Okayama University)
Kazuhiro Takimoto (Hiroshima University)
Ken-Ichi Nakamura (Kanazawa University)

Date : October 30 (Wed.) 13:40 – November 1 (Fri.) 13:50, 2013

Place : Room 420, Research Institute for Mathematical Sciences,
Kyoto University

Webpage : http://www.math.sci.hiroshima-u.ac.jp/~takimoto/rims2013_e.html

Program

October 30 (Wed.)

13:40 – 14:30 **Masaharu Taniguchi** (Okayama University)

An $(N - 2)$ -dimensional surface with positive principal curvatures gives an N -dimensional traveling front in the Allen-Cahn equation

14:50 – 15:40 **Takeshi Ohtsuka** (Gunma University)

Growth rate of a crystal surface with a co-rotating pair of spiral steps evolving by an eikonal-curvature flow

16:00 – 16:50 **Yoshihiro Tonegawa** (Hokkaido University)

A time-global existence of mean curvature flow via reaction diffusion approximation

October 31 (Thu.)

- 10:00 – 10:50 **Hideki Murakawa** (Kyushu University)
Cross-diffusion systems: RDS approximation and Numerical analysis
- 11:10 – 12:00 **Kunimochi Sakamoto** (Hiroshima University)
Destabilization/Stabilization of Diffusion Systems by Diffusion
and Boundary Flux
- 13:40 – 14:30 **Takashi Sakamoto** (Meiji University)
Double zero degeneracy in the presence of 0:1:2 resonance
- 14:50 – 15:40 **Tohru Tsujikawa** (University of Miyazaki)
Global structure of the stationary solutions for the limiting system
of an Chemotaxis-Growth Model
- 16:00 – 16:50 **Yong Jung Kim** (KAIST)
Starvation driven dispersal and pattern formations
- 18:30 – Banquet

November 1 (Fri.)

- 10:00 – 10:50 **Kanako Suzuki** (Ibaraki University)
Instability and blowup phenomena induced by diffusion in some
reaction-diffusion-ODE
- 11:10 – 12:00 **Xiaofeng Ren** (George Washington University)
A double bubble solution in a ternary system with inhibitory long range
interaction
- 13:00 – 13:50 **Cyrill Muratov** (New Jersey Institute of Technology)
Front propagation in geometric and phase field models of stratified media

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