

The 9th International Workshop on Differential Equations

May 29–31, 2008

Chonnam National University, Kwangju, Korea

Organizers: Minkyu Kwak (Chonnam National Univ.),
Ki-Ahm Lee (Seoul National Univ.)
Byeong Chun Shin (Chonnam National Univ.)

Invited Speakers:

Mohamed T. Darvishi (Razi University, Iran)
Jong-Shenq Guo (National Taiwan Normal Univ.)
Michael S. Jolly (Indiana Univ. at Bloomington)
Eiji Yanagida (Tohoku University)
Hyeong-Ohk Bae (Ajou Univ.)
Soo Hyun Bae (Hanbat National University)
Jaeyoung Byeon (POSTECH)
Sun-Sig Byun (Seoul National Univ.)
Yonggeun Cho (Chonbuk National Univ.)
Hi Jun Choe (Yonsei Univ.)
Kwangseok Choe (Inha Univ.)
Jaeduck Jang (Hankuk Univ. of Foreign Studies)
TongKeun Chang (KIAS)
Jongmin Han (Hankuk Univ. of Foreign Studies)
Hyung Ju Hwang (POSTECH)
Bumja Jin (Mokpo National Univ.)
Hyeonbae Kang (Seoul National Univ.)
Kyung Keun Kang (Sungkyunkwan Univ.)
Hyun Seok Kim (Sogang Univ.)
Seick Kim (Yonsei Univ.)
Jihoon Lee (Sungkyunkwan Univ.)
Ki-Ahm Lee (Seoul National Univ.)
Yong-Hoon Lee (Pusan National Univ.)

Supported by:

Korea Research Foundation (PDE Analysis and Parallel Computing Lab.)
Brain Korea 21 (Scientific Computing and Bio-statistics)
Mathematical Research Center at Chonnam National University
The Korean Mathematical Society

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PROGRAM

May 29 (Thursday):

Session 1 [Chairperson: Minkyu Kwak]

- 1:20–1:30 Opening Address by Changho Byun (Chonnam National University)
1:30–2:10 Hi Jun Choe (Yonsei University)
On the kinetic model of low temperature plasma
2:10–2:40 Seick Kim (Yonsei University)
Green's matrices for second order elliptic and parabolic systems
2:40–3:00 Break
3:00–3:30 Hyeong-Ohk Bae (Ajou University)
Regularity for the Stokes type non-Newtonian equations
3:30–4:00 TongKeun Chang (KIAS)
Properties of parabolic Sobolev and parabolic Besov spaces
4:00–4:30 Soo Hyun Bae (Hanbat National University)
Multiplicity of positive entire solutions of inhomogeneous semilinear elliptic equations
4:30–4:50 Break

Session 2 [Chairperson: Jeong-Seon Baek]

- 4:50–5:20 Bumja Jin (Mokpo National University)
Asymptotic properties for Stokes equations on a half space
5:20–5:50 Mohamed T. Darvishi (Razi University, Iran)
Reduction of round off errors in matrix vector multiplication method by some preconditionings
5:50–6:00 Break
6:00–6:50 Jong-Shenq Guo (National Taiwan Normal University)
Traveling wave solutions of lattice dynamical systems
7:00–9:00 Welcome Party

May 30 (Friday)

Session 3 [Chairperson: Hi Jun Choe]

- 9:30–10:00 Sun-Sig Byun (Seoul National University)
Regularity theory for Nonlinear Elliptic Equations
- 10:00–10:30 Jihoon Lee (Sungkyunkwan University)
Remarks on the regularity of the incompressible fluids
- 10:30–10:50 Break
- 10:50–11:20 Kyung Keun Kang (Sungkyunkwan University)
Interior regularity criteria of suitable weak solution for the magnetohydrodynamic equations
- 11:20–12:00 Ki-Ahm Lee (Seoul National University)
Parabolic method in nonlinear eigenvalue problems
- 12:00–1:30 Lunch**

Session 4 [Chairperson: Ki-Ahm Lee]

- 1:30–2:20 Eiji Yanagida (Tohoku University)
Solutions with moving singularities for a semilinear heat equation
- 2:20–2:30 Break
- 2:30–3:10 Jaeyoung Byeon (POSTECH)
A spike layer solution to singularly perturbed nonlinear Neumann problems
- 3:10–3:40 Jongmin Han (Hankuk University of Foreign Studies)
Asymptotic problems in a Maxwell-ChernSimons model
- 3:40–4:00 Break

Session 5 [Chairperson: Hyeong-Ohk Bae]

- 4:00–4:30 Jaeduck Jang (Hankuk University of Foreign Studies)
Uniqueness of positive solutions of $-\Delta u + f(u) = 0$, $N \geq 2$
- 4:30–5:00 Yong-Hoon Lee (Pusan National University)
 p -Laplacian problems with singular weights: Eigenvalues and bifurcations
- 5:00–5:30 Kwangseok Choe (Inha University)
On the vortex solutions of nontopological-type in the self-dual Chern-Simons-Higgs theory
- 5:30–5:50 Break
- 5:50–6:40 Michael Jolly (Indiana University at Bloomington)
Sharp estimates for turbulent flow
- 7:00–9:00 Reception Party at Korean Traditional Restaurant**

May 31 (Saturday)

Session 6 [Chairperson: Jaeyoung Byeon]

9:30–10:00 Hyun Seok Kim (Sogang University)

The stationary Navier–Stokes equations with irregular boundary data:
existence, a priori estimate and uniqueness

10:00–10:30 Yonggeun Cho (Chonbuk National University)

On the radial solutions of semirelativistic equations

10:30–10:50 Break

10:50–11:30 Hyung Ju Hwang (POSTECH)

Pattern formation in dissipative systems and its applications to thin film
and biological systems

11:30–12:10 Hyeonbae Kang (Seoul National University)

Spectral Analysis for Phononic Crystals and Band Gap Opening Criterion

12:10–12:20 Closing

12:20–6:00 Excursion

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