

# 第十四屆微分方程研討會及數學分析研討會

## 2006 Workshop on Differential Equations and Mathematical Analysis

時間：2006年1月6日（週五）至8日（週日） 地點：中央研究院數學研究所

### Program at a Glance

	Jan. 6 (Fri.)	Jan. 7 (Sat.)	Jan. 8 (Sun.)
chairman		Fon-Che Liu 劉豐哲	Ying-Hen Hsieh 謝英恆
09:00-09:30		Plenary talk	Hung-Ju Kuo 郭紅珠 (Chung Hsing University)
09:30-10:00		Tai-Ping Liu 劉太平 (Academia Sinica)	Toshio Yoshikawa 吉川俊雄 (Academia Sinica)
10:00-10:30	<b>Tea Break</b>		
chairman		Tai-Ping Liu 劉太平	Sze-Bi Hsu 許世壁
10:30-11:00		Chi-Kun Lin 林琦焜 (Cheng Kung University)	Ying-Hen Hsieh 謝英恆 (Chung Hsing University)
11:00-11:30		Jiann Sheng Jiang 江鑑聲 (Tung-Fang Institute of Technology)	Shuh Yaur Tzeng 曾旭堯 (Changhua University of Education)
11:30-12:00		Meng-Kai Hong 洪盟凱 (Central University)	Jengnan Tzeng 曾正男 (Academia Sinica)

	Jan. 6 (Fri.)		Jan. 7 (Sat.)		Jan. 8 (Sun.)
	<b>Lunch</b>				
chairman	Bau-Sen Du 杜寶生	Chin-Cheng Lin 林欽誠	Chi-Tien Lin 林吉田	Sen-Yen Shaw 蕭勝彥	Jyh-Hao Lee 李志豪
14:00-14:30	Hung-Lin Chiu 邱鴻麟 (Academia Sinica)	Hang-Chin Lai 賴漢卿 (Chung Yuan Christian University)	Sze-Bi Hsu 許世璧 (Tsing-Hua University)	Tsang-Hai Kuo 郭滄海 (Chang Gung University)	Yi-Chiuan Chen 陳怡全 (Academia Sinica)
14:30-15:00	Chun-Chi Lin 林俊吉 (Taiwan Normal University)	Kunchuan Wang 王昆濤 (Tzuchi College of Technology)	Jong-Shenq Guo 郭忠勝 (Taiwan Normal University)	Hwa-Long Gau 高華隆 (Central University)	I-Liang Chern 陳宜良 (Taiwan University)
15:00-15:30	Fei-tsen Liang 梁惠禎 (Academia Sinica)	Ho-Ping Liu 劉和平 (Beijing University)	Chao-Nien Chen 陳兆年 (Changhua University of Education)	Mao-Ting Chien 簡茂丁 (Soochow University)	
15:30-16:00	<b>Tea Break</b>				
chairman	Hung-Ju Kuo 郭紅珠	Hang-Chin Lai 賴漢卿	Jong-Shenq Guo 郭忠勝	Mao-Ting Chien 簡茂丁	
16:00-16:30	Leevan Ling 凌立雲 (Sun Yat-sen University)	S. Y. Chang 張秀瑜 (Soochow University)	Chi-Tien Lin 林吉田 (Providence University)	Mark C. Ho 何宗軒 (Sun Yat-sen University)	
16:30-17:00	Kuo-Ming Lee 李國明 (Chiao Tung University)	Chin-Cheng Lin 林欽誠 (Central University)	Chu-Pin Lo 羅主斌 (Providence University)	Fang-Bo Yeh 葉芳柏 (Tung-Hai University)	
17:00-17:30	Bau-Sen Du 杜寶生 (Academia Sinica)	Yuh-Jia Lee 李育嘉 (University of Kaohsiung)	Tzyy-Leng Horng 洪子倫 (Feng-Chia University)	Huang-Nan Huang 黃皇男 (Tung-Hai University)	
17:40 -	歡迎茶會 (備有茶點)		晚 宴		

## January 6 (Friday)

### A. Session on Differential Equations

14:00-14:30

Hung-Lin Chiu 邱鴻麟 (Academia Sinica)

Compactness of pseudohermitian structures with integral bounds on curvature

14:30-15:00

Chun-Chi Lin 林俊吉 (Taiwan Normal University)

On the Geometric Flow of Plane Curves and its Applications to the Path-Planning Problem

15:00-15:30

Fei-tsien Liang 梁惠禎 (Academia Sinica)

Regularity for the equation of prescribed Gauss curvature

### Tea Break

16:00-16:30

Leevan Ling 凌立雲 (Sun Yat-sen University)

Recent development of meshless methods

16:30-17:00

Kuo-Ming Lee 李國明 (Chiao Tung University)

A new method in inverse scattering from a Neumann crack

17:00-17:30

Bau-Sen Du 杜寶生 (Academia Sinica)

A Simple Non-directed Graph Proof of Sharkovsky's Theorem

### B. Session on Mathematical Analysis

14:00-14:30

Hang-Chin Lai 賴漢卿 (Chung Yuan Christian University)

Complex programming on the trail of generalized convex analytic functions

14:30-15:00

Kunchuan Wang 王昆湧 (Tzuchi College of Technology)

Triebel-Lizorkin space of para-accretive type and the Tb theorem

15:00-15:30

Ho-Ping Liu 劉和平 (Beijing University)

Cascade algorithm and refinable functions on the Heisenberg group

**Tea Break**

16:00-16:30

S. Y. Chang 張秀瑜 (Soochow University)

Maximal elements in noncompact spaces with application to eqilibria

16:30-17:00

Chin-Cheng Lin 林欽誠 (Central University)

Hormander's multipliers for weighted Herz-type Hardy spaces

17:00-17:30

Yuh-Jia Lee 李育嘉 (University of Kaohsiung)

Lévy white noise measures on infinite dimensional spaces and a characterization of their measurable supports

**January 7 (Saturday)**

09:00-10:00

Plenary talk

Tai-Ping Liu 劉太平 (Academia Sinica)

Nonlinear PDE of Mixed Types

**A. Session on Differential Equations**

**Tea Break**

10:30-11:00

Chi-Kun Lin 林琦焜 (Cheng Kung University)

Critical exponent of the PDE under the viewpoint of dimensional analysis

11:00-11:30

Jiann Sheng Jiang 江鑑聲 (Tung-Fang Institute of Technology)

On the homogenization of a three by three system

11:30-12:00

Meng-Kai Hong 洪盟凱 (Central University)

The construction of generalized solutions for the Riemann problem of nonlinear balance laws with singular source terms

### **Lunch**

14:00-14:30

Sze-Bi Hsu 許世璧 (Tsing-Hua University)

Mathematical Analysis of a Bohr Atom Model

14:30-15:00

Jong-Shenq Guo 郭忠勝 (Taiwan Normal University)

Traveling Waves of Monostable Dynamics on a Lattice

15:00-15:30

Chao-Nien Chen 陳兆年 (Changhua University of Education)

Pattern formation for skew-gradient systems

### **Tea Break**

16:00-16:30

Chi-Tien Lin 林吉田 (Providence University)

Stability analysis for some finite difference schemes for good Boussinesq equations

16:30-17:00

Chu-Pin Lo 羅主斌 (Providence University)

A Mathematical Model of the Canine Pulmonary Veins Sleeves

17:00-17:30

Tzyy-Leng Horng 洪子倫 (Feng-Chia University)

Computer Simulation of Electrical Activity of the Heart

## B. Session on Mathematical Analysis

### **Tea Break**

10:30-11:00

Sen-Yen Shaw 蕭勝彥 (Lunghwa Univ. of Sci. and Tech.)

The Daugavet equation for a family of operators

11:00-11:30

Kung-Yu Chen 陳功宇 (Tamkang University)

A note on the Lagrange polynomials in several variables

11:30-12:00

Ngai-Ching Wong 黃毅青 (SunYat-sen University)

Local automorphism of operator algebras

### **Lunch**

14:00-14:30

Tsang-Hai Kuo 郭滄海 (Chang Gung University)

Compactness in nonlinear elliptic problems

14:30-15:00

Hwa-Long Gau 高華隆 (Central University)

Numerical ranges of reducible companion matrices

15:00-15:30

Mao-Ting Chien 簡茂丁 (Soochow University)

The q-numerical range of normal operator

### **Tea Break**

16:00-16:30

Mark C. Ho 何宗軒 (SunYat-sen University)

An interpolation method based on a Tauberian theorem of Hardy concerning the interchanges between arithmetic means and Abel's means

16:30-17:00

Fang-Bo Yeh 葉芳栢 (Tung-Hai University)

Spectral Nevanlinna-Pick interpolation theory

17:00-17:30

Huang-Nan Huang 黃皇男 (Tung-Hai University)

The SCF problem and chain rules for higher derivatives

## January 8 (Sunday)

### A. Session on Differential Equations

09:00-09:30

Hung-Ju Kuo 郭紅珠 (Chung Hsing University)

On variants of the Aleksandrov-Bakelman maximum principle and applications

09:30-10:00

Toshio Yoshikawa 吉川俊雄 (Academia Sinica)

Dispersion relations for quasi-periodic wave trains in Toda lattice

### Tea Break

10:30-11:00

Ying-hen Hsieh 謝英恆 (Chung Hsing University)

Basic Reproduction Number for Some Infectious Disease Models

11:00-11:30

Shuh Yaur Tzeng 曾旭堯 (Changhua University of Education)

Homoclinic orbits of almost periodic Hamiltonian systems

11:30-12:00

Jengnan Tzeng 曾正男 (Academia Sinica)

Significant genes retrieval utilizing Latent Semantic Analysis

### Lunch

14:00-14:30

Yi-Chiuan Chen 陳怡全 (Academia Sinica)

On Topological Entropy of Convex Billiard Tables with Small Inner Scatterers

14:30-15:00

I-Liang Chern 陳宜良 (Taiwan University)

Long-time behavior of the nonlinear Schrödinger-Langevin equations