

WORKSHOP ON JORDAN STRUCTURES  
IN ANALYSIS AND GEOMETRY 2006

NATIONAL SUN YAT-SEN UNIVERSITY  
KAOHSIUNG, TAIWAN, R. O. C.  
APRIL 3–7, 2006.

March 21, 2006

---

**Monday, April 3, 2006**  
**College of Science Building, NSYSU, Kaohsiung**

**08:10 – 08:40 Registration**

**Lecture Hall 2001 (Chair: JC Yao)**

**08:10 – 08:40 Registration**

**08:45 – 9:00 Opening**

Wei-Hsien Wang 王維賢副校長 (Vice President, National Sun Yat-sen University)

**09:00 – 9:50** Pei-Yuan Wu 吳培元 (National Chiao Tung University, Taiwan)  
*Numerical ranges of matrices and operators.*

**10:00 – 10:50** Wilhelm Kaup (University of Tuebingen, Germany)  
*Jordan algebras, holomorphy and CR-geometry, I.*

TEA/COFFEE/SNACKS

**Lecture Hall 2001 (Chair: CH Chu)**

**11:10 – 12:00** Harald Upmeyer (University of Marburg, Germany)  
*Jordan Algebras, Harmonic Analysis and Quantization Theory, I.*

**12:10 – 12:40** Laszlo L. Stacho (SZTE Bolyai Institute, Hungary)  
*Continuous Reinhardt domains.*

**Lunch**

**Lecture Hall 2001 (Chair: W Kaup)**

**14:00 – 14:50** C. Martin Edwards (The Queen's College, Oxford, UK)  
*The inner ideal structure of  $JBW^*$ -triples.*

**Parallel Session I, Lecture Hall 2001 (Chair: R Iordanescu)**

**15:00 – 15:30** Tatsuhiro Honda (Hiroshima Institute of Technology, Japan)  
*Starlike and convex mappings on a complex Banach space.*

TEA/COFFEE/SNACKS

**15:50 – 16:20** Borut Zalar (University of Maribor, Slovenia)  
*Algebraic Jordan-von Neumann theorem and its connection with some Jordan type mappings.*

**16:30 – 17:00** Chang-Pao Chen 陳璋洸 (National Tsing Hua University, Taiwan)  
*Lower bounds of copson type for hausdorff matrices.*

**Parallel Session II, Lecture Hall 3001 (Chair: M Mathieu)**

**15:00 – 15:30** Bit-Shun Tam 譚必信 (Tamkang University, Taiwan)  
*The Omega Limit Set Associated with a Cone-Preserving Linear Map.*

TEA/COFFEE/SNACKS

**15:50 – 16:20** Remo V. Hugli (University College Dublin, Ireland)  
*Algebraic properties of normal contractive projections on  $JBW^*$ -triples.*

**16:30 – 17:00** Hwa-Long Gau 高華隆 (Chungnam National University)  
 *$C^*$ -Isomorphisms, Jordan Isomorphisms and Numerical Range Preserving Maps.*

**Lecture Hall 2001 (Chair: W Kaup)**

**17:10 – 18:00** Yaakov Friedman (Jerusalem College of Technology, Israel)  
*Bounded symmetric domains as a model for physics.*

---

**Tuesday, April 4, 2006**  
**College of Science Building, NSYSU, Kaohsiung**

**Lecture Hall 2001 (Chair: K McCrimmon)**

**09:00 – 9:50** Harald Upmeyer (University of Marburg, Germany)  
*Jordan Algebras, Harmonic Analysis and Quantization Theory, II.*

**10:00 – 10:50** Wilhelm Kaup (University of Tuebingen, Germany)  
*Jordan algebras, holomorphy and CR-geometry, II.*

TEA/COFFEE/SNACKS

**Lecture Hall 2001 (Chair: PY Wu)**

**11:10 – 12:00** Ka-Sing Lau 劉家成 (The Chinese University of Hong Kong)  
*Cauchy transform of fractal sets.*

**12:10 – 12:40** Masaharu Kusuda (Kansai University, Japan)  
*Crossed products of Hilbert  $C^*$ -modules by coactions and duality theorems.*

**Lunch**

**Lecture Hall 2001** (Chair: CC Lin)

**14:00 – 14:50** Matthew P. Neal (Denison University, USA)  
*Jordan and Ternary structures in Operator Space Theory.*

**Parallel Session I, Lecture Hall 2001** (Chair: KS Lau)

**15:00 – 15:30** Hang-Chin Lai 賴漢卿 (Chung Yuan Christian University, Taiwan)  
*Complex Fractional Programming and the Charnes-Cooper Transformation.*

TEA/COFFEE/SNACKS

**15:50 – 16:20** Chi-Keung Ng 吳志强 (Nankai University, China)  
*Geometric unitaries of unital  $JB$ -algebras.*

**16:30 – 17:00** Chi-Wai Leung 梁子威 (The Chinese University of Hong Kong)  
*Fourier analysis on domains in compact groups.*

**Parallel Session II, Lecture Hall 3001** (Chair: SY Shaw)

**15:00 – 15:30** Lai-Jiu Lin 林來居 (National Changhua University of Education, Taiwan)  
*Systems of Variational Inclusion with applications to Ekeland's Variational Principle, Equilibrium Problems, Fixed Point Theorems and Optimization Problems.*

TEA/COFFEE/SNACKS

**15:50 – 16:20** Ying-Hsiung Lin 林英雄 (National Changhua University of Education, Taiwan)  
*Any  $P$ -complemented block basis of a symmetric basis for a real Banach space can be extended to an unconditional basis of the whole space.*

**16:30 – 17:00** Chun-Gil Park 朴春吉 (Chungnam National University, Korea)  
*Homomorphisms between  $JC^*$ -Algebras.*

**Lecture Hall 2001** (Chair: H Upmeyer)

**17:10 – 17:50** Cho-Ho Chu 朱礎豪 (University of London, UK)  
*Jordan structures in  $C^*$ -algebras.*

**18:30** Banquet

---

Wednesday, April 5, 2006  
A one day trip to Kenting National Park

---

Thursday, April 6, 2006  
College of Science Building, NSYSU, Kaohsiung

International Conference Hall (Chair: M Edwards)

09:00 – 9:50 Kevin M. McCrimmon (University of Virginia, USA)  
*A Survey of J-Operators in Jordan Theory.*

10:00 – 10:50 Issai Kantor (Lunds University, Sweden)  
*On generalized representations of Jordan algebras.*

TEA/COFFEE/SNACKS

11:10 – 12:00 Takaaki Nomura (Kyushu University, Japan)  
*Cayley transforms of a homogeneous Siegel domain.*

12:10 – 12:40 Martin Mathieu (Queen's University Belfast, UK)  
*When are two  $C^*$ -algebras Jordan isomorphic?*

Lunch

International Conference Hall (Chair: M Edwards)

14:00 – 14:50 Leslie J. Bunce (University Of Reading, UK)  
*Dunford-Pettis properties in  $JB^*$ -triples and Hilbert space surjections.*

Parallel Session I, Room 4009-1 (Chair: T Nomura)

15:00 – 15:30 Jyh-Shyang Jeang 蔣志祥 (Military Academy, Taiwan)  
*Disjointness preserving shifts on  $C_0(X)$ .*

TEA/COFFEE/SNACKS

15:50 – 16:20 Hideyuki Ishi (Yokohama City University, Japan)  
*T-algebras and Jordan algebras.*

16:30 – 17:00 Chifune Kai (Kyoto University, Japan)  
*A characterization of symmetric Siegel domains by convexity of Cayley transform images.*

Parallel Session II, Room 4011 (Chair: W Werner)

**15:00 – 15:30** Sen-Yen Shaw 蕭勝彥 (Lunghwa University of Science and Technology, Taiwan)

*The Daugavet Equation and Numerical Ranges of Operators.*

TEA/COFFEE/SNACKS

**15:50 – 16:20** Jor-Ting Chan 陳作庭 (The University of Hong Kong)

*Mappings preserving spectra of products of matrices.*

## Drama Hall

**17:10 – 18:00 Concert**, performed by the faculty and students of Music Department, NSYSU, for our Workshop guests.

---

**Friday, April 7, 2006**

**National Center for Theoretical Sciences, South Office, NCKU, Tainan**

**Parallel Session I (Chair: I Kantor)**

**09:00 – 9:50** Radu Iordanescu (Romanian Academy, Romania)

*Some differential geometrical applications of Jordan algebras.*

**10:00 – 10:50** Wend Werner (Westfälische Wilhelms-Universität, Germany)

*Ternary rings of operators, affine manifolds and causal structure.*

TEA/COFFEE/SNACKS

**11:10 – 12:00** Antonio M. Peralta (Universidad de Granada, Spain)

*A substitute for topology in  $JB^*$ -triples.*

**Parallel Session II (Chair: NC Wong)**

**09:00 – 9:50** Jiang Chun Lan 蔣春瀾 (Hebei Normal University, China)

*Structure of Operators on Hilbert Spaces.*

**10:00 – 10:50** Hong-Ke Du 杜鴻科 (Shaanxi Normal University, China)

*Two Subspaces of a Hilbert Space.*

TEA/COFFEE/SNACKS

**11:10 – 12:00** Guoxing Ji 吉國興 (Shaanxi Normal University, China)

*Analyticity of certain operator algebras.*

**12:10 – 12:40** Michael Mackey (University College Dublin, Ireland)

*Confined Banach Spaces.*

**12:40 – 12:50 Closing**

Soon-Yi Wu 吳順益主任 (Chairman, South Office of National Center for Theoretical Sciences)

---

**Lunch**

A half day tour to look around the historical city Tainan