International Conference on Nonlinear Mathematics for Uncertainty and its Applications

(NLMUA2011)

http://www.caas.org.cn/NLMUA2011/

September 7-9, 2011

HOSTED BY

College of Applied Sciences, Beijing University of Technology

SPONSORED BY

Beijing University of Technology, China

Kyushu Institute of Technology, Japan

VENUE

Grand Gongda Jianguo Hotel

Beijing University of Technology

100 Pingleyuan, Chaoyang District, Beijing, China

SUPPORTED BY

Funding Project for Academic Human Resources Development in Institutions of Higher Learning under the Jurisdiction of Beijing Municipality The Project of Beijing Disciplines and Graduate Education

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Matthias Troffaes (Durham University, UK)

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Berlin Wu (National Chengchi University, Taiwan)

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Bing Xu (Zhejiang Gongshang University, China)

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Guangquan Zhang (University of Technology, Australia)

Guoli Zhang (North China Electric Power University, China)

Jinping Zhang (North China Electric Power University, China)

Qiang Zhang (Beijing Institute of Technology, China)

Local Organizers (Beijing University of Technology)

Zhongzhan Zhang

Liugen Xue

Weihu Cheng

Xuejing Li

Tianfa Xie

Hongxia Wang

Junfei Zhang

Xu Zhang

Conference Program Schedule

Tuesday, 06/09/2011

10:00 –18:30 Conference registration (Grand Gongda Jianguo Hotel)

18:30 –20:00 Reception (Buffet dinner at Grand Gongda Jianguo Hotel)

Note: All the conference rooms are on the third floor of Grand Gongda Jianguo Hotel

Wednesday, 07/09/2011

| 8:00 – 8:50 | Conference registration (Grand Gongda Jianguo Hotel) |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8:50 – 9:30 | Opening Ceremony – Grand Ballroom |
| | Note: including photo taken for all participants |
| 9:30 – 10:20 | Plenary talk 1 – Michio Sugeno – Grand Ballroom Ordinal Preference Models Based on S-Integrals and Their Verification Chair: Jia-An Yan |
| | Chair. Sia 7 iii Turi |
| 10:20 – 10:40 | Tea break |
| 10:40 – 11:30 | Plenary talk 2 – Gert de Cooman – Grand Ballroom New Developments in Applying Imprecise Probabilities in Stochastic Processes and Probabilistic Graphical Models Chair: Hung T. Nguyen |
| 11:30 – 12:20 | Plenary talk 3 – Zengjing Chen – Grand Ballroom Strong Laws of Large Numbers for Bernoulli Experiments under Ambiguity Chair: Yoshiaki Okazaki |
| 12:30 – 13:40 | Lunch |
| 13:50 – 15:30 | Grand Ballroom – Nonadditive Measures and Integrals I Session Chair: Radko Mesiar |
| | Peony Room - Fuzzy Mathematics I |
| | Session Chair: Guangquan Zhang |
| | Hibiscus Room – Statistics and Application I Session Chair: Dabuxilatu Wang |
| 15:30 – 15:50 | Tea break |
| 15:50 – 17:30 | Grand Ballroom – Possibility and Belief Functions Session Chair: Thierry Denœux |
| | Peony Room — Probability with Applications Session Chair: Zhongxing Ye |
| | Hibiscus Room – Nonlinear Methods of DE and PDE |
| | Session Chair: Masami Yasuda |
| 18:00 – | Welcome dinner (Grand Gongda Jianguo Hotel) |

Thursday, 08/09/2011

| | • | | | |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| 8:30 – 9:20 | Plenary talk 4 – Thierry Denœux – Grand Ballroom Statistical Analysis of Imperfect Data in the Belief Functions Framework Chair: Jun Kawabe | | | |
| 9:20 – 10:10 | Plenary talk 5 – Jianming Xia – Grand Ballroom Comparative Risk Aversion for g-Expected Utility Maximizers Chair: Toshiaki Murofushi | | | |
| 10:10 – 10:30 | Tea break | | | |
| 10:30 – 12:30 | Session Chair: Zengjing Chen | | | |
| | Peony Room – Nonlinear Functional Analysis I Session Chair: Mariusz Michta | | | |
| 12:30 – 13:40 | Lunch | | | |
| 13:50 – 15:30 | Grand Ballroom – Nonadditive Measures and Integrals II Session Chair: Coeraad Labuschagne | | | |
| | Peony Room — Nonlinear Functional Analysis II Session Chair: Kenjiro Yanagi | | | |
| | Hibiscus Room – Fuzzy Mathematics II Session Chair: Zhoutian Fan | | | |
| 15:30 – 15:50 | Tea break | | | |
| 15:50 – 17:30 | Grand Ballroom – Mathematical Finance II Session Chair: Jianming Xia | | | |
| | Peony Room — Statistics and Application II Session Chair: Zhongzhan Zhang | | | |
| | Hibiscus Room – Fuzzy Mathematics III Session Chair: Jun Li | | | |
| 17:50 – | Banquet Note: Meet outside at 17:50 in front of Grand Gongda Jianguo for a shuttle bus | | | |

Friday, 09/09/2011

| | • |
|---------------|----------------------------------------------------------------------------------------------------------------------------|
| 8:30 – 10:10 | Peony Room – Set-Valued and Fuzzy Set-Valued Integrals and |
| | Stachastic Processes |
| | Session Chair: Aoi Honda |
| | Hibiscus Room – Information Sciences |
| | Session Chair: Katsushige Fujimoto |
| 10:10 – 10:30 | Tea break |
| 10:30 – 11:50 | Peony Room – Random Sets and Imprecise Probabilities |
| | Session Chair: Gert de Cooman |
| | Hibiscus Room – Fuzziness and Applications |
| | Session Chair: Toshiaki Murofushi |
| 12:00 – 13:10 | Lunch |
| 13:30 – | An extra activity to the Great Wall is pre-arranged for those who have paid for the excursion. The tour includes a dinner. |

Conference Program Schedule in Detail

Note: All the conference rooms are on the third floor of Grand Gongda Jianguo Hotel

| Wednesday, 07/09/2011 | 08:50-09:30 | Grand Ballroom |
|-----------------------|-------------|----------------|
| | | |

Opening Ceremony

Note: including photo taken for all participants

| Wednesday, 07/0 | 09/2011 | 09:30-10:20 | Grand Ballroom |
|-----------------|-------------------------|--------------------------|--------------------------------|
| Plenary Talk | | Chair: Jia-An Yan | |
| 09:30 - 10:20 | Title: Ordinal Preferen | ice Models Based on S-In | tegrals and Their Verification |
| | Michio Sugeno | | |

10:20 – 10:40 Tea break

| Wednesday, 07/0 | 9/2011 | 10:40-1 | 12:20 | | | Grand Ballro | om |
|-----------------|--------------------------------------------|-----------|--------------|-------|--------------|-------------------|------|
| Plenary Talk | Chair: Hung T. Nguyen and Yoshiaki Okazaki | | | | | | |
| 10:40 - 11:30 | Title: New Developme | nts in Ap | plying Imp | recis | e Probabilit | ies in Stochastic | |
| | Processes and Pr | obabilis | tic Graphica | al Mo | odels | | |
| | Gert de Cooman | | | | | | |
| 11:30 - 12:20 | Title:Strong Laws of | f Large | Numbers | for | Bernoulli | Experiments ur | nder |
| | Ambiguity | | | | | | |
| | Zengjing Chen | | | | | | |

12:30 – 13:40 Lunch

| Wednesday, 07/0 | 9/2011 | 13 | :50-15:30 | Grand Ballroom |
|-----------------|-----------------------------------------------|-----------------|---------------------|------------------------------------|
| Session7GB1: No | onadditive Me | easures and Int | egrals I | Chair: Radko Mesiar |
| 13:50 - 14:10 | Title:Riesz | Type Integra | l Representations | for Comonotonically Additive |
| Functionals | | | | |
| | Author(s): J | un Kawabe | | |
| 14:10 - 14:30 | Title: On Re | egularity for N | on-Additive Measur | e |
| | Author(s): T | Гoshikazu Wata | nabe and Tamaki Ta | nnaka |
| 14:30 - 14:50 | Title: Pseud | o-Concave Inte | egrals | |
| | Author(s): Radko Mesiar, Jun Li and Endre Pap | | | |
| 14:50 - 15:10 | Title: Upper | Derivatives o | Set Functions Rep | resented as the Choquet Indefinite |
| | Integr | ral | | |
| | Author(s): S | Shinsuke Naka | nura, Toshiyuki Tak | asawa and Toshiaki Murofushi |
| 15:10 – 15:30 | Title:Multip | ole-Output Ch | oquet Integral Mo | dels and Their Applications in |
| | Classif | ication Method | ls | |
| | Author(s): E | Eiichiro Takaha | gi | |
| | | | | |

| Wedneedow III/ | 00/2011 | 10.50.15.00 | D D |
|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|
| Wednesday, 07/0 | | 13:50-15:30 | Peony Room |
| | Suzzy Mathematics I | | Chair: Guangquan Zhang |
| 13:50 – 14:10 | | - | its Finite Set of Alpha-Cuts |
| | | ng Liu and Qinghe Sun | |
| 14:10 – 14:30 | | ntropies on the Interval- | <u>•</u> |
| | Author(s): Wenyi Z | eng, Hongxing Li and S | huang Feng |
| 14:30 – 14:50 | Title: The Represer | tation Theorem on the C | Category of $\mathbf{FTML}(\mathcal{L})$ |
| | Author(s): Jie Zhan | g, Xiaoliang Kou and Bo | o Liu |
| 14:50 – 15:10 | Title: On Generatin | g Functions of Two-Dim | nensional T-Norms |
| | Author(s): Masaya | Nohmi, Aoi Honda and | Yoshiaki Okazaki |
| Wednesday, 07/0 | 09/2011 | 13:50-15:30 | Hibiscus Room |
| Session7HR1: S | Statistics and Applicati | on I | Chair: Dabuxilatu Wang |
| 13:50 – 14:10 | Title: Monte-Carlo | Simulation of Error Sort | t Model |
| | Author(s): Ryoji Fu | kuda and Kaoru Oka | |
| 14:10 – 14:30 | Title: Some Remark | about Consistency Pro | blem of Parameter Estimation |
| | Author(s): Mingzho | ong Jin, Minqing Gong a | and Hongmei Liu |
| 14:30 – 14:50 | . , | | ters with Rational Number Cuts |
| | - | atu Wang and Jingjing W | |
| 14:50 – 15:10 | | 0 00 0 | gle-Index Regression Models |
| - 110 0 | - | Li, Gaorong Li and Suig | |
| 15:10 – 15:30 | | | Heteroscedastic Regression Models |
| 10.110 10.100 | • | Xu and Zhongzhan Zhai | · · |
| 15:30 – 15:50 | Tea break | | |
| | | | |
| Wednesday 07/0 | 09/2011 | 15:50-17:30 | Grand Ballroom |
| Wednesday, 07/0 | | 15:50-17:30 | |
| Session7GB2: P | Possibility and Belief I | Functions | Chair: Thierry Denœux |
| • | Possibility and Belief I Title:Completely M | Functions Ionotone Outer Approx | Chair: Thierry Denœux |
| Session7GB2: P | Possibility and Belief I Title:Completely M Finite Possib | Functions Monotone Outer Approx ility Spaces | Grand Ballroon Chair: Thierry Denœux cimations of Lower Probabilities of |
| Session7GB2: P 15:50 – 16:10 | Possibility and Belief I Title:Completely M Finite Possib Author(s): Erik Qu | Functions Monotone Outer Approxility Spaces Aeghebeur | Chair: Thierry Denœux cimations of Lower Probabilities of |
| Session7GB2: P | Possibility and Belief I Title:Completely M Finite Possib Author(s): Erik Qua Title: Belief Netwo | Functions Monotone Outer Approxility Spaces aeghebeur rks and Local Computati | Chair: Thierry Denœux cimations of Lower Probabilities of |
| Session7GB2: P 15:50 – 16:10 16:10 – 16:30 | Possibility and Belief I Title:Completely M Finite Possib Author(s): Erik Qu Title: Belief Netwo Author(s): Radim J | Functions Monotone Outer Approxility Spaces Maghebeur Res and Local Computation The second computation of the second c | Chair: Thierry Denœux cimations of Lower Probabilities o |
| Session7GB2: P 15:50 – 16:10 | Possibility and Belief I Title:Completely M Finite Possib Author(s): Erik Qua Title: Belief Netwo Author(s): Radim J Title: Characterizat | Functions Ionotone Outer Approxility Spaces aeghebeur rks and Local Computation irou Sek ion of Generalized Nece | Chair: Thierry Denœux cimations of Lower Probabilities of ions |
| Session7GB2: P 15:50 – 16:10 16:10 – 16:30 | Possibility and Belief I Title:Completely M Finite Possib Author(s): Erik Qua Title: Belief Netwo Author(s): Radim J Title: Characterizat Lukasiewicz | Functions Monotone Outer Approximate ility Spaces Sughebeur rks and Local Computations iroušek Sughebeur of Generalized Nece Logic | Chair: Thierry Denœux cimations of Lower Probabilities of tions essity Functions in |
| Session7GB2: P 15:50 - 16:10 16:10 - 16:30 16:30 - 16:50 | Possibility and Belief I Title:Completely M Finite Possib Author(s): Erik Qua Title: Belief Netwo Author(s): Radim J Title: Characterizat Lukasiewicz Author(s): Tommas | Functions Monotone Outer Approximate ility Spaces along the segment of the segme | Chair: Thierry Denœux cimations of Lower Probabilities of tions essity Functions in Kroupa |
| Session7GB2: P 15:50 – 16:10 16:10 – 16:30 | Possibility and Belief I Title:Completely M Finite Possib Author(s): Erik Quantitle: Belief Netwo Author(s): Radim J Title: Characterizat Lukasiewicz Author(s): Tommas Title:Using Impro | Functions Monotone Outer Approximate ility Spaces are ghebeur rks and Local Computation of Generalized Nece Logic to Flaminio and Tomáš lecise and Uncertain | Chair: Thierry Denœux cimations of Lower Probabilities o tions essity Functions in Kroupa |
| Session7GB2: P 15:50 - 16:10 16:10 - 16:30 16:30 - 16:50 | Possibility and Belief I Title:Completely M Finite Possib Author(s): Erik Qua Title: Belief Netwo Author(s): Radim J Title: Characterizat Lukasiewicz Author(s): Tommas Title:Using Impro Diagnosis of a l | Functions Monotone Outer Approximate ility Spaces aeghebeur rks and Local Computation of Generalized Nece Logic to Flaminio and Tomáš lecise and Uncertain Railway Device | Chair: Thierry Denœux cimations of Lower Probabilities o ions essity Functions in Kroupa Information to Enhance th |
| Session7GB2: P 15:50 - 16:10 16:10 - 16:30 16:30 - 16:50 | Possibility and Belief I Title:Completely M Finite Possib Author(s): Erik Quantitle: Belief Netwo Author(s): Radim J Title: Characterizat Lukasiewicz Author(s): Tommas Title:Using Impropiagnosis of a l Author(s): Zohra L | Functions Monotone Outer Approximate Spaces All Spaces | Chair: Thierry Denœux cimations of Lower Probabilities o ions essity Functions in Kroupa |
| Session7GB2: P 15:50 - 16:10 16:10 - 16:30 16:30 - 16:50 | Possibility and Belief I Title:Completely M Finite Possib Author(s): Erik Quantitle: Belief Netwo Author(s): Radim J Title: Characterizat Lukasiewicz Author(s): Tommas Title:Using Impropiagnosis of a l Author(s): Zohra L | Functions Monotone Outer Approximate ility Spaces aeghebeur rks and Local Computation of Generalized Nece Logic to Flaminio and Tomáš lecise and Uncertain Railway Device | Chair: Thierry Denœux cimations of Lower Probabilities o ions essity Functions in Kroupa Information to Enhance th |

10

Title: Generalization of Hua's Inequality and Entropy-Like Functions

Chair: Zhongxing Ye

Session7PR2: Probability with Applications

15:50 - 16:10

| | Author(s): Makoto Tsukada, Takeshi Miura, Hiroyuki Takagi and Sin-Ei |
|---------------|--------------------------------------------------------------------------|
| | Takahasi |
| 16:10 - 16:30 | Title:The Extinction of a Branching Process in a Varying or Random |
| | Environment |
| | Author(s): Yangli Hu, Wei Hu and Yue Yin |
| 16:30 - 16:50 | Title: A Property of Two-parameter Generalized Transition Function |
| | Author(s): Yuquan Xie |
| 16:50 - 17:10 | Title: Conditional Ruin Probability with A Markov Regime Switching Model |
| | Author(s): Xuanhui Liu, Li-ai Cui and Fangguo Ren |

| Wednesday, 07/0 | 9/2011 | 15:50-17:30 | | Hibiscus Room |
|-----------------|-------------------------|----------------------|--------------------|--------------------|
| Session7HR2: No | onlinear Methods of D | E and PDE | Chair: Masami | Yasuda |
| 15:50 – 16:10 | Title:Existence of Po | ositive Solution for | the Cauchy Problem | n for an Ordinary |
| | Differential Eq | quation | | |
| | Author(s): Toshiharu | Kawasaki and Masa | shi Toyoda | |
| 16:10 – 16:30 | Title: Stability of a T | wo Epidemics Model | | |
| | Author(s): T. Dumron | ngpokaphan, W. Jaiho | onglam and R. Ounc | haroen |
| 16:30 - 16:50 | Title:The Impulsive | Synchronization for | r m-dimensional F | Reaction-Diffusion |
| | System | | | |
| | Author(s): Wanli Yan | ng and Suwen Zheng | | |
| 16:50 - 17:10 | Title: Chaos in a Frac | ctional-Order Dynam | ical Model of Love | and its Control |
| | Author(s): Rencai Gu | u and Yong Xu | | |
| 17:10 - 17:30 | Title:Convergence | Theorems for Fixe | d Point Problems | and Variational |
| | Inequality Probl | lems | | |
| | Author(s): Sachiko A | Atsushiba | | |
| | | | | |

| Thursday,08/09/ | 2011 | 08:30-10:10 | Grand Ballroom |
|-----------------|----------------------------|-----------------------------|------------------------------|
| Plenary Talk | | Chair: Jun Kawabe and | Toshiaki Murofushi |
| 08:30 - 09:20 | Title: Statistical Analysi | is of Imperfect Data in the | e Belief Functions Framework |
| | Thierry Denœux | | |
| 09:20 - 10:10 | Title: Comparative Risk | Aversion for g-Expected | Utility Maximizers |
| | Jianming Xia | | |
| | | | |

10:10 – 10:30 Tea break

12:30 - 13:40

Lunch

| Thursday, 08/09/2 | 2011 10 | :30-12:30 | Grand Ballroom | |
|-----------------------------------------------------------|------------------------------|----------------------|-----------------------------|--|
| Session8GB1: Mathematical Finance I (i | | ed session) | Chair: Zengjing Chen | |
| 10:30 – 11:00 Title: Pricing CDS with Jump-Diffusion Risk | | | he Intensity-Based Model | |
| | Author(s): Ruili Hao and Z | hongxing Ye | | |
| 11:00 - 11:30 | Title: Pricing Convertible E | Bonds Using the CGM | Y Model | |
| | Author(s): Coenraad C.A. I | Labuschagne and Ther | resa M. Offwood | |
| 11:30 - 12:00 | Title: Pricing Formulas of C | Compound Options un | der the Fractional Brownian | |
| | Motion | | | |
| | Author(s): Chao Zhang, Jiz | hou Zhang and Dongy | ya Tao | |
| 12:00 - 12:30 | Title: On Nonlinear Correla | ntion of Random Elem | ents | |
| | Author(s): Hung T. Nguyer | ı | | |

| Thursday, 08/09/ | /2011 10:30-12:10 Peony Room |
|------------------|------------------------------------------------------------------------------|
| Session8PR1: N | onlinear Functional Analysis I Chair: Mariusz Michta |
| 10:30 - 10:50 | Title:Existence of Fixed Points of Nonspreading Mappings with Bregman |
| | Distances |
| | Author(s): Fumiaki Kohsaka |
| 10:50 - 11:10 | Title: Halpern's Iteration for a Sequence of Quasinonexpansive Type Mappings |
| | Author(s): Koji Aoyama |
| 11:10 - 11:30 | Title:Convergence of Iterative Methods for an Infinite Family of |
| | Pseudo-contractions |
| | Author(s): Yuanheng Wang and Jiashuai Dong |
| 11:30 – 11:50 | Title:Shrinking Projection Method for a Family of Quasinonexpansive |
| | Mappings with a Sequence of Subsets of an Index Set |
| | Author(s): Yasunori Kimura |
| 11:50 - 12:10 | Title: Note on Generalized Convex Spaces |
| | Author(s): Xiaodong Fan and Yue Cheng |
| | |

| Thursday, 08/09/ | 2011 13:50-15 | 5:30 | Grand Ballroom |
|------------------|-----------------------------------|-------|----------------------------|
| Session8GB2: N | onadditive Measure and Integrals | II | Chair: Coeraad Labuschagne |
| 13:50 - 14:10 | Title: Integral-Based Modificatio | ns of | OWA-Operators |
| | Author(s): Erich Peter Klement a | nd Ra | adko Mesiar |
| 14:10 - 14:30 | Title: On Lusin's Theorem for No | n-Ad | ditive Measure |

| | Author(s): Tamaki Tanaka and Toshikazu Watanabe | | | | |
|------------------------------------------------------------------------------|------------------------------------------------------------------------------|--|--|--|--|
| 14:30 - 14:50 | Title: Autocontinuity from Below of Set Functions and Convergence in Measure | | | | |
| | Author(s): Jun Li, Masami Yasuda and Ling Zhou | | | | |
| 14:50 – 15:10 | Title:On Spaces of Bochner and Pettis Integrable Functions and Their | | | | |
| | Set-Valued Counterparts | | | | |
| | Author(s): Coenraad C.A. Labuschagne and Valeria Marraffa | | | | |
| 15:10 – 15:30 Title: On Convergence Theorems of Set-Valued Choquet Integrals | | | | | |
| | Author(s): Hongxia Wang and Shoumei Li | | | | |
| | | | | | |

| Thursday, 08/09/2 | 2011 13:50-15:30 | Peony R | loom |
|-------------------|------------------------------------------------|------------------------------|-------|
| Session8PR2: No | onlinear Functional Analysis II | Chair: Kenjiro Yanagi | |
| 13:50 - 14:10 | Title:The (h,ϕ) -Generalized Second-Order | Directional Derivative in Ba | anach |
| | Space | | |
| | Author(s): Wenjuan Chen, Caozong Cheng a | and Caiyun Jin | |
| 14:10 - 14:30 | Title:Blind Equalization, Independent Co | mponent Analysis and Mini | mum |
| | Entropy | | |
| | Author(s): Makoto Tsukada and Hiroyoshi C |) da | |
| 14:30 - 14:50 | Title: Estimation of Bessel Operator Inversion | on by Shearlet | |
| | Author(s): Lin Hu and Youming Liu | | |
| 14:50 - 15:10 | Title: Public-Key Cryptosystem Based on n- | th Residuosity of $n=p^2q$ | |
| | Author(s): Tomoko Adachi | | |

| Thursday, 08/09/ | /2011 | 13:50-15:30 | | Hibiscus Room |
|------------------|---------------------------|-------------------------|----------------------------|---------------|
| Session8HR1: F | uzzy Mathematics II | | Chair: Zhoutian Fa | n |
| 13:50 – 14:10 | Title: L-Fuzzy Subal | gebras and L -Fuzzy F | Filters of R_0 -Algebras | |
| | Author(s): Chunhui l | Liu and Luoshan Xu | | |
| 14:10 – 14:30 | Title: Weak Approximation | mable Concepts and C | Completely Algebraic | Lattices |
| | Author(s): Hongping | Liu, Qingguo Li and | l Lankun Guo | |
| 14:30 - 14:50 | Title: Completely Co | ompact Elements and | Atoms of Rough Sets | S |
| | Author(s): Gaolin Li | and Luoshan Xu | | |
| 14:50 – 15:10 | Title: On the Factoria | zation Theorem of a M | Monotone Morphism | in a Topos |
| | Author(s): Tao Lu an | id Hong Lu | | |
| 15:10 – 15:30 | Title: Ideal-Converge | ence in Quantales | | |
| | Author(s): Shaohui I | iang | | |
| | | | | |

15:30 – 15:50 Tea break

| Thursday, 08/09/2011 | | 15:50-17:30 | Grand Ballroom |
|--------------------------------------|-------------------------|------------------|-------------------------------------|
| Session8GB3: Mathematical Finance II | | | Chair: Jianming Xia |
| 15:50 – 16:10 Title:The Dividend Pro | | oblems for Compo | ound Binomial Model with Stochastic |
| | Return on Inve | estments | |
| | Author(s): Jiyang Tan, | Xiangqun Yang, Y | oucai Zhang and Shaoyue Liu |
| 16:10 – 16:30 | Title: The Nonlinear Te | erminal-Boundary | Problems for Barrier Options |
| | Author(s): Yulian Fan | | |

| 16:30 - 16:50 | Title: Knightian Uncertainty Based Option Pricing with Jump Volatility | | | | |
|---------------|--------------------------------------------------------------------------|--|--|--|--|
| | Author(s): Min Pan and Liyan Han | | | | |
| 16:50 - 17:10 | Title: Influence of Risk Incentive by Limited Dividend Provision | | | | |
| | Author(s): Hiroshi Inoue, Masatoshi Miyake and Li Guan | | | | |
| 17:10 - 17:30 | Title: European Option Pricing with Ambiguous Return Rate and Volatility | | | | |
| | Author(s): Junfei Zhang and Shoumei Li | | | | |

| Thursday, 08/09/2 | 2011 | 15:50-17:30 | | Peony Room |
|-------------------|---------------------------|------------------|----------------------------|----------------|
| Session8PR3: Sta | atistics and Application | II | Chair: Zhongzhan Zhang | |
| 15:50 – 16:10 | Title: Testing of Relati | ve Difference un | der Inverse Sampling | |
| | Author(s): Shaoping J | iang and Yanfang | g Zhao | |
| 16:10 - 16:30 | Title: Variable Selection | on for Semiparan | netric Isotonic Regression | Models |
| | Author(s): Jiang Du, Z | Zhongzhan Zhang | g and Tianfa Xie | |
| 16:30 - 16:50 | Title:Study of Progno | ostic Factor Bas | sed on Factor Analysis a | and Clustering |
| | Method | | | |
| | Author(s): Zheng Liu, | Liying Fang, Mi | ngwei Yu and Pu Wang | |
| 16:50 - 17:10 | Title: Applying Factor | Analysis to Wa | ter Quality Assessment: A | Study Case of |
| | Wenyu River | | | |
| | Author(s): Chen Gao, | Jianzhuo Yan, Su | ihua Yang and Guohua Tar | 1 |

| Thursday, 08/09/ | 2011 15:50-17:30 | Hibiscus Room | |
|------------------|------------------------------------------------------------------------------|------------------|--|
| Session8HR2: Fu | nzzy Mathematics III Chair: Jun Li | | |
| 15:50 – 16:10 | 15:50 – 16:10 Title: Fuzzy Similarity Measure Model for Trees with Duplicate | | |
| | Author(s): Dianshuang Wu and Guangquan Zhang | | |
| 16:10 – 16:30 | Title:Linking Developmental Propensity Score to Fuzzy | Sets: a New | |
| | Perspective, Applications and Generalizations | | |
| | Author(s):Xuecheng Liu, Richard E. Tremblay, Sylvana | Cote and Rene | |
| | Carbonneau | | |
| 16:30 - 16:50 | Title:Geometric Weighting Method and Its Application on I | Load Dispatch in | |
| | Electric Power Market | | |
| | Author(s): Guoli Zhang and Chen Qiao | | |
| 16:50 - 17:10 | Title: A New Fuzzy Linear Programming Model and its Applica | ations | |
| | Author(s): Hsuan-Ku Liu and Berlin Wu | | |
| | | | |
| 17:50 – | Banquet | | |
| | Note: Meet outside at 17:50 in front of Grand Gongda | Jianguo for a | |

shuttle bus

| Friday, 09/09/20 | 8:30-10:10 | Peony Room |
|------------------|-----------------------------------------------------------------|------------------|
| Session9PR1: Se | t-Valued and Fuzzy Set-Valued Integrals and Stochastic Processe | S |
| | Chair: Ac | oi Honda |
| 08:30 -08:50 | Title:On Fuzzy Stochastic Integral Equations—a Martingale Pro | oblem Approach |
| | Author(s): Mariusz Michta | |
| 08:50 -09:10 | Title:Set-Valued Stochastic Integrals with respect to Poisson | n Processes in a |
| | Banach Space | |
| | Author(s): Jinping Zhang and Itaru Mitoma | |
| 09:10 -09:30 | Title: Fuzzy Stochastic Integral Equations Driven by Martingale | es |
| | Author(s): Marek T. Malinowski and Mariusz Michta | |
| 09:30 -09:50 | Title:Moderate Deviations of Random Sets and Random Upper | Semicontinuous |
| | Functions | |
| | Author(s): Xia Wang | |
| 09:50 -10:10 | Title: Solution of Random Fuzzy Differential Equation | |
| | Author(s): Jungang Li and Jinting Wang | |

| Friday, 09/09/201 | 1 | 8:30-1 | 0:10 | | | Hibiscus Room |
|-------------------|-------------------------------------------|----------|----------------------------|------------|---------|----------------------|
| Session9HR1: Inf | formation Sciences | | Chair: Katsushige Fujimoto | | | jimoto |
| 08:30 -08:50 | Title:Metric Adjusted | Skew | Informatio | n and | Metric | Adjusted Correlation |
| | Measure | | | | | |
| | Author(s): Kenjiro Yan | agi and | Shigeru Fu | ruichi | | |
| 08:50 -09:10 | Title:The Semantics | of wlp | and slp | of Fuzz | zy Imp | erative Programming |
| | Languages | | | | | |
| | Author(s): Hengyang V | Vu and | Yixiang Cho | en | | |
| 09:10 -09:30 | Title: One-Shot Decision | on Appr | oaches with | n Regret | | |
| | Author(s): Peijun Guo | | | | | |
| 09:30 -09:50 | Title: Bottleneck Comb | inatoria | al Optimiza | tion Prob | olems w | ith Fuzzy Scenarios |
| | Author(s): Adam Kaspe | erski an | d Paweł Zie | eliński | | |
| 09:50 -10:10 | Title: On the Profit Ma | nipulati | ons of Chin | nese Liste | ed Comp | panies |
| | Author(s): Shuangjie Li and Xingxing Chen | | | | | |

10:10 – 10:30 Tea break

| Friday, 09/09/201 | 1 10:30-11:50 | Grand Ballroom | | |
|-------------------|---------------------------------------------------------------------------------|-----------------------|--|--|
| Session9PR2: Ra | ndom Sets and Imprecise Probabilities | Chair: Gert de Cooman | | |
| 10:30 - 10:50 | Title: The Convergence Theorems of Set-Valued Pramart in a Banach Space | | | |
| | Author(s): Li Guan and Shoumei Li | | | |
| 10:50 - 11:10 | Title: About the Probability-Field-Intersections of Weichselberger and a Simple | | | |
| | Conclusion from Least Favorable Pairs | | | |
| | Author(s): Martin Gümbel | | | |
| 11:10 - 11:30 | Title: Study of Newsboy Problem with Fuzzy Probability Distribution | | | |
| | Author(s): Xinshun Ma and Ting Yuan | | | |

| Friday, 09/09/20 | 11 10:30-1 | 1:50 | Peony Room |
|--------------------------------------------------------|---------------------------------------------------------------------------------|-----------------------------------|-------------------|
| Session9HR2: Fuzziness and Applications Chair: Tosh | | Chair: Toshiaki Murofushi | |
| 10:30 - 10:50 | Title: Fuzzy Portfolio Optimization Model with Fuzzy Numbers | | |
| | Author(s): Chunquan Li and Jia | anhua Jin | |
| 10:50 - 11:10 | Title: A Decision-making Mode | el of Adopting New Technology l | by Enterprises in |
| Industrial Clusters under the Condition of Interaction | | | |
| | Author(s): Xianli Meng, Xin-an Fan, Baomin Hu and Xuan Li | | |
| 11:10 – 11:30 | Title: Blogger's Interest Mining Based on Chinese Text Classification | | |
| | Author(s): Suhua Yang, Jianzhi | o Yan, Chen Gao and Guohua Ta | an |
| 11:30 – 11:50 | Title: Application of Cross-correlation in Velocity Measurement of Rainwater in | | |
| | Pipe | | |
| | Author(s): Zhanpeng Li and Bi | n Fang | |
| | | | |
| 12:00 - 13:10 | Lunch | | |
| | | | |
| 13:30 – | An extra activity to the Great | Wall is pre-arranged for those wh | ho have paid for |
| | the excursion. The tour include | s a dinner. | |

Useful Information

Currency and Payments

The currency used in China is Ren Min Bi (RMB) Yuan. The exchange rate between USD and RMB at present is about 1 USD to RMB 6.4 Yuan. Credit cards such as Visa, American Express and Master Card are acceptable at large hotels, restaurants and shopping centers, and can be cashed at airport or in the branches of the Bank of China or in the big Hotels.

Temperature

From the historical data, we have the following data table. This is just for your reference. If you want to get more precise weather of Beijing during September 6 to 10, 2011, please look at the related weather homepage just before you come to Beijing.

| City | Temperature | September 610 |
|---------|---------------------------------------------------------|---------------|
| | Average High ($^{\circ}$ C) | 28 |
| Beijing | Average Low ($^{\circ}$ C) | 17 |
| | Max (℃) | 32 (in 2007) |
| | $\operatorname{Min}\left({}^{\circ}\!\mathbb{C}\right)$ | 7 (in 1967) |

Electricity

The electrical voltage in China is 220V. Some hotels provide 110V outlets for electric razors.

Transportation from Beijing Capital International Airport

Generally, the fee for taxi from Beijing Capital International Airport to Grand Gongda Jianguo Hotel and Beijing University of Technology is about 95RMB (US\$15). If you meet traffic jam, you may pay a little bit more.

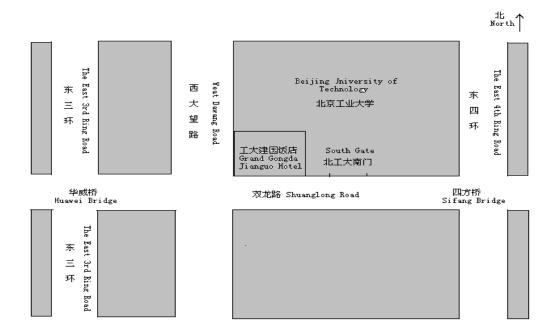
Grand Gongda Jianguo Hotel is just next to the south gate of Beijing University of Technology. The following card may be useful for communicating with taxi drivers who may not understand English.

Please send me to Grand Gongda Jianguo Hotel, just next to the south gate of Beijing University of Technology

请送我到北京工业大学南门西边的工大建国饭店

For more information about the transportation between the Hotel and BCIA, please visit our conference web.

The following is a simple map of the surrounding of Grand Gongda Jianguo Hotel (工大建国饭店的周边道路图)



Important Note: Please print this page out and show the taxi driver for your convenience, since most of taxi drivers can't understand English.

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