

# The Eighth International Symposium on Operations Research and Its Applications (ISORA 2009)

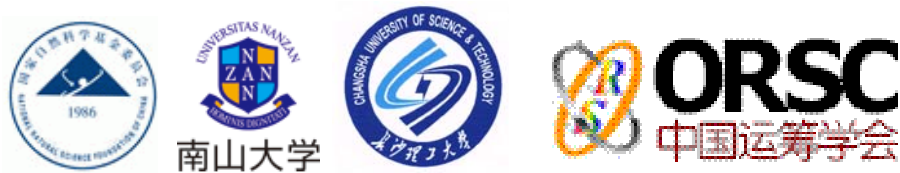
## Local Organizer



## Organizers



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September 20-22, 2009  
Zhangjiajie, Hunan, China

## ISORA2009 / OSB2009 Sessions & Locations

Date		Conf Room #1	Conf Room #4	Conf Room #5
<b>September 20 Sunday</b>	<b>Morning 08:30-12:30</b>	ISORA P1 ISORA P2	OSB A1 OSB A2	OSB B1 OSB B2
	<b>Afternoon 13:30-18:00</b>	OSB P1 OSB P2	ISORA A1 ISORA A2	
	<b>Evening 18:30-22:30</b>	Welcome reception & Art performance		
<b>September 21 Monday</b>	<b>8:00-18:00</b>	One day sightseeing to Zhangjiajie National Park		
<b>September 22 Tuesday</b>	<b>Morning 08:30-12:00</b>	OSB P3 OSB A3	ISORA A3 ISORA A4	
	<b>Afternoon 13:30-18:00</b>	OSB A4 OSB A5	ISORA A5 ISORA A6	OSB B4 OSB B5
	<b>Evening 18:00-20:00</b>	Banquet		

# ISORA2009 Schedule

September 19 Saturday	15:00-23:30	Registration (hotel lobby at Qinghe)	
September 20 Sunday	08:30-08:50	Opening Session (Room #1)	
	09:00-10:40	ISORA Plenary Session P1 (Room #1)	
		Elise Del Rosario, IFORS President, Philippines	Guizhen Liu, Shandong University, China
	10:40-11:10	Coffee break	
	11:10-12:00	ISORA Plenary Session P2 (Room #1)	
		Hiroyuki Kawano, Nanzan University, Japan	
	12:00-13:30	Lunch	
	13:30-15:30	ISORA Session A1 (Room #4)	Applications I
	15:30-16:00	Coffee break	
16:00-18:00	ISORA Session A2 (Room #4)	Applications II	
18:30-22:30	Welcome reception & art performance		
September 21 Monday	08:00-18:00	One day excursion	
September 22 Tuesday	08:30-09:50	ISORA Session A3 (Room #4)	Algorithms
	09:50-10:20	Coffee break	
	10:20-12:00	ISORA Session A4 (Room #4)	Applications III
	12:00-13:30	Lunch	
	13:30-15:10	ISORA Session A5 (Room #4)	Programming
	15:10-15:40	Coffee break	
	15:40-17:40	ISORA Session A6 (Room #4)	Queuing & Scheduling
	18:00-20:00	Banquet	

# ISORA 2009 Program

September 20-22, Zhangjiajie, Hunan, China

## September 19 (Saturday) Registration

**15:00-23:30 Registration**, Participants arrival in Zhangjiajie, check in Qinghe Jinjiang Hotel/Tianzi Hotel, and Registration package pick up (Hotel Lobby at Qinghe Jinjiang Hotel).

## September 20 (Sunday) Technical sessions

**08:00-11:30 Registration for late arrivals** (*Qinghe Jinjiang Hotel Lobby*)

**08:30-08:50 Opening Session** (Conf Room #1)

**09:00-10:40 ISORA Plenary Session P1** (Conf Room #1)  
**Chair: Xiang-Sun Zhang**

**09:00-09:50** *Operations Research: A Powerful and Versatile Discipline*  
**Elise del Rosario**  
IFORS President, Philippines

**09:50-10:40** *Some Results on Edge Coloring Problems with Constraints in Graphs*  
**Guizhen Liu**  
Shandong University, China

**10:40-11:10 Coffee break**

**11:10-12:00 ISORA Plenary Session P2** (Conf Room #1)  
**Chair: Masanori Fushimi**

**11:10-12:00** *Towards Digital Archive Systems: Architecture and Design of Digital Museum Archive*  
**Hiroyuki Kawano**  
Nanzan University, Japan

**12:00-13:30 Lunch break**

**13:30-15:30 ISORA Session A1** (Conf Room #4)  
**Topic: Applications I**  
**Chair: Tatsuo Oyama**

**13:30-13:50** *Simulating Growth of Transportation Networks*  
**Tsutomu Suzuki, Yasuhiro Watanabe**  
University of Tsukuba, Japan

**13:50-14:10** *How Many Routes Can Be Removed in Airline Network?*

**Hozumi Morohosi**

National Graduate Institute for Policy Studies, Japan

**14:10-14:30** *Study of Water Resource Allocation Mechanism Design*

**Xi Xia**, Jinchuan Cui

Chinese Academy of Sciences, China

**14:30-14:50** *A Safety Stock Problem in Battery Switch Stations for Electric Vehicles*

**Honma Yudai**, Kurita Osamu

Tokyo Metropolitan University, Japan

**14:50-15:10** *A New Model and Calculation of Available Transfer Capability with Wind Generation*

**Xiaojiao Tong**, Chunping Liu, Xiao Luo, Renjun Zhou

Changsha University of Science and Technology, China

**15:10-15:30** *A Multi-Item Inventory Control Model for Perishable Items with Two Shelves*

**Hiroyuki Wakinaga, Katsushige Sawaki**

Nanzan University, Japan

**15:30-16:00** **Coffee break**

**16:00-18:00 ISORA Session A2** (Conf Room #4)

**Topic: Applications II**

**Chair: Tsutomu Suzuki**

**16:00-16:20** *Optimal Location of Facilities with Limited Capacity*

**Takamori Ukai**

Nanzan University, Japan

**16:20-16:40** *Gateway Location Models*

**Mihiro Sasaki**, Takehiro Furuta, **Atsuo Suzuki**

Nanzan University, Japan

**16:40-17:00** *Quantitative Data Analyses for the Recent Change of the Japanese Food Self-Sufficiency Ratios*

Kunihisa Yoshi, Ngyen Huu Trung, **Tatsuo Oyama**

National Graduate Institute for Policy Studies, Japan

**17:00-17:20** *Evaluation of Capacities of Refuges in Urban Areas by Using Dynamic Network Flows*

Naoyuki Kamiyama, **Atsushi Takizawa**, Naoki Katoh, Yuto Kawabata

Kyoto University, Japan

**17:20-17:40** *Multi-criteria Student Project Allocation: A Case Study of Goal Programming Formulation with DSS Implementation*

**Li Pan**, Sydney C.K. Chu, Guangyue Han, Joshua Z. Huang

University of Hong Kong, HK

**17:40-18:00** *Generalized Weber Model for Hub Location of Air Cargo*

**Daisuke Watanabe**, Takahiro Majima, Keiki Takadama, Mitujiro Katuhara

Tokyo University of Marine Science and Technology, Japan

**18:30-20:00** **Welcome reception at Qinghe Jinjiang Hotel**

**20:30-22:30** **"The Charming Western Hunan"-Ethnic Art performance.**

**September 21 (Monday)** Social Program: One-day tour to  
Zhangjiajie National Park  
8:00 Departure at Qinghe Jinjiang Hotel Lobby

## **September 22 (Tuesday)** Technical sessions

**08:30-09:50 ISORA Session A3** (Conf Room #4)

**Topic: Algorithms**  
**Chair: Dequan Yue**

**08:30-08:50** *An Implementation of a 5-term GFSR Random Number Generator for Parallel Computations*

**Hajime Miyazawa**, Masanori Fushimi  
Nanzan University, Japan

**08:50-09:10** *Numerical Computation for Demyanov Difference of Polyhedral Convex Sets*

**Chun-Ling Song**, Zun-Quan Xia, Zhen-Sheng Chen  
Foshan University, China

**09:10-09:30** *Integrated Convex Optimization in Banach Space and its Application to Best Simultaneous Approximation*

**Jin-Shan Li**, Xue-Ling Tian  
Beijing Forestry University, China

**09:30-09:50** *Approximating Bounded Degree Maximum Spanning Subgraphs*

**Wangsen Feng**, Hao Ma, Bei Zhang, Hanpin Wang  
Peking University, China

**9:50-10:20 Coffee break**

**10:20-12:00 ISORA Session A4** (Conf Room #4)

**Topic: Applications III**  
**Chair: Hiroyuki Kawano**

**10:20-10:40** *Optimal Impulse Control for Cash Management with Two Sources of Short-term Funds*

**Kimitoshi Sato**, **Katsushige Sawaki**  
Nanzan University, Japan

**10:40-11:00** *Certainty Equivalent in Portfolio Management*

Xiao-Song Ding, **Xi Chen**, Ji-Hong Zhang  
Beijing Foreign Study University, China

**11:00-11:20** *Double Exponential Jump Diffusion Processes and Its Application to Real Options*

**Atsuo Suzuki**, Katsushige Sawaki  
Nanzan University, Japan

**11:20-11:40** *Analysis of Energy Consumption in 159 Countries by Triangular Pyramid Diagram*

**Kotoh Hiroshi**, Yanai Hiroshi

Tohoku university of Art and Design, Japan

**11:40-12:00** *Supply Chain repairable Model with the Multi-suppliers and Single Demander*

Xiao-Lin Liang, **Mei Liu**, **Lei Tan**

Changsha University of Science & Technology, China

**12:00-13:30 Lunch break**

**13:30-15:10 ISORA Session A5** (Conf Room #4)

**Topic: Programming**

**Chair: Katsushige Sawaki**

**13:30-13:50** *Some Properties of Semi-E-Convex Function and Semi-E-Convex Programming*

**Xiusu Chen**

Chongqing Technology and Business University, China

**13:50-14:10** *A New Constructive Proof to the Existence of an Integer Zero Point of a Mapping with the Direction Preserving Property*

**Chuangyin Dang**, **Guixian Zhong**

City University of Hong Kong, HK

**14:10-14:30** *A Tabu Search Algorithm to Construct BIBDs Using MIP Solvers*

**Daisuke Yokoya**, **Takeo Yamada**

National Defense Academy, Japan

**14:30-14:50** *Solution of Large-scale LP Problems Using MIP Solvers: Repeated Assignment Problem*

**Daisuke Yokoya**, **Takeo Yamada**

National Defense Academy, Japan

**14:50-15:10** *An Efficient Asynchronous Parallel Evolutionary Algorithm Based on Message Passing Model for Solving Complex Nonlinear Constrained Optimization*

**Hao Wu**, Chunlin Xu, Xiufen Zou

Wuhan University, China

**15:10-15:40 Coffee break**

**15:40-17:40 ISORA Session A6** (Conf Room #4)

**Topic: Queuing & Scheduling**

**Chair: Wuyi Yue**

**15:40-16:00** *Scheduling with Rejection to Minimize the Total Weighted Completion Time*

**Shu-Xia Zhang**, Zhi-Gang Cao, Yu-Zhong Zhang

Zhenjiang Ship University, China

**16:00-16:20** *A Joining Shortest Queue with MAP Inputs*

**Zhaotong Lian**, Wenhui Zhou, Baohe Su

University of Macau, Macau, China

**16:20-16:40** *Sensitivity and Approximation of M/G/c Queue: Numerical Experiments*

**Yang Woo Shin**, **Dug Hee Moon**

Changwon National University, Korea

**16:40-17:00** *A Heterogeneous Two-Server Queueing System with Balking and Server Breakdowns*

**Dequan Yue, Wuyi Yue, Jun Yu, Ruiling Tian**

Yanshan University, China

**17:00-17:20** *MIP-Based Approaches for Solving Scheduling Problems with Batch Processing Machines*

Udo Buscher, **Liji Shen**

Technische Universitaet Dresden, Germany

**17:20-17:40** *Shift Scheduling Problems in Nanzan University Entrance Examinations—Their Formulation and Implementation*

**Atsuo Suzuki, Kana Yamamoto, Naomi Ito, Masanori Fushimi**

Nanzan University, Japan

### **18:00-20:00 Banquet**

\*The above program subjects to revision based on further information and Ad Hoc presentation requests.