2001 ICOTA
Saturday, December 15

Plenary Lectures
Venue: SHB Auditorium (Rm 508)

Plenary Lecture I  9:40-10:20
Optimization Approaches to Pricing Theory
Luenberger, David G.  Stanford University
Chair: Teo, K. L.

Plenary Lecture II  10:40-11:20
Optimization with Extended Nonlinear Programming
Rockafellar, Terry  Univ. of Washington
Chair: Qi, L. Q.

Plenary Lecture III  11:20-12:00
Some Recent Advances in Mathematical Programs with Equilibrium Constraints
Fukushima, Masao  Kyoto University
Chair: Qi, L. Q.

SATM1  1:30-3:30
(Venue: LSB LT1)
Mini-Symposium on Reformulation Methods: I
Organizer: Fukushima, Masao
Organizer: Qi, L.Q.
Organizer: Yang Yufei
Chair: Chen, Xiaojun
Chair: Fukushima, Masao

SATM1-1  1:30
Copositive Matrices in Mathematical Programming
Pang, Jong-Shi

SATM1-2  2:10
Algorithms for Linear Programming in Measure Spaces
Wu, Soon-Yi

SATM1-3  2:30
On the Moreau-Yosida Regularization of the Lagrangian-Dual Functions
Zhao, Gong-yun

SATM1-4  2:50
A Modified Aggregate Homotopy Method for Convex Minimax Problems
Yu, Bo*
Qi, Liqun
Liu, Guoxin

SATM1-5  3:10
Global Convergence of a Modified SQP Method for Nonlinear Programs
Wan, Zhong*
Li, Dong-hui
Zhou, Shu-zi

SATM2  1:30-3:10
(Venue: LSB LT2)
Invited Session on MPECs and Error Bounds
Organizer and Chair: Ye, Jane

SATM2-1  1:30
Error Bound of Abstract Linear Inequality System
Ng, Kung Fu
Yang, Wei Hong *

SATM2-2  1:50
Error Bounds for Convex Inclusions
Ng, Kung Fu
Zheng, Xi Yin*

SATM2-3  2:10
Sensitivity Analysis for Mathematical Program with Equilibrium Constraints
Ye, Jane Juan-Juan

SATM2-4  2:30
On Error Bounds for Lower Semicontinuous Functions on Banach Spaces
Wu, Zili*
Ye, Jane Juan-Juan

SATM2-5  2:50
Sensitivity Analysis Based Method for Optimal Road Network Pricing
Ying, Jiang Qian
Miyagi, Toshihiko
Liu, Bing Yi

SATM3  1:30-2:45
(Venue: LSB LT3)
Best Student Paper Presentation
Chair: Zhang, Jianzhong

SATM3-1  1:30
Discrete Gradient Method in Nonsmooth Optimization
BAGIROV, A. M.

SATM3-2  1:55
A New Relaxation Method for Mathematical Programs with Complementarity Constraints
Lin, Gui-Hua*
Fukushima, Masao

SATM3-3  2:20
Approximation Algorithms for Common Due Date Assignment and Job Scheduling on Parallel Machines
Xiao, Wen-Qiang *
Li, Chung-Lun

SATM4  1:30-3:30
(Venue: LSB LT4)
Mini-Symposium on Generalized Convexity and Nonlinear Lagrangians: I
Organizer: Schaible, Siegfried
Organizer: Yang, Xinmin
Organizer: Rubinov, Alex M.
Chair: Rubinov, Alex M.

SATM4-1  1:30
Fuzzy Clustering Using Global Optimisation
Beliakov, Gleb
Efficient Serial and Parallel Implementations of the Cutting Angle Global Optimization Technique
Beliakov, Gleb*
Ting, Kai Ming
Mursheed, Manzur

Numerical Analysis of Nonlinear Penalty Functions Method
Bagirov, A. M.*
Rubinov, Alex M.

Necessary and Sufficient Conditions for a Class of Nonlinear Exact Penalty Functions of Constrained Multiobjective Programs
Huang, X. X.*
Yang, X. Q.

Solving Molecular Distance Geometry Problems by a Continuation Approach via the Gaussian Transform
Le Thi, Hoai An

D. C. (Difference of Convex Functions) Programming for Solving an Inverse Problem for an Elliptic Equation
Le Thi, Hoai An
Pham Dinh, Tao*
Dinh Nho, Hao

Group Scheduling with Controllable Setup and Processing Times: Minimizing Total Weighted Completion Time
Ng, C. T. Daniel
Cheng, T.C.E.
Janiak, Adam
Kovalyov, Mikhail Y.

Minimizing Completion Time Variance with Compressible Processing Times
Ng, C. T. Daniel
Cai, X.
Cheng, T.C.E.

(Archive: LSB LT5)

Contributed Session on Optimization Applications: I
Chair: Yang, J. B.

Single-Machine Stochastic Scheduling with Due Date Windows and Earliness-Tardiness Cost
Cai, Xiaojian
Sun, Xiaojian
Zhou, Xian

A New Genetic Scheduling Algorithm
Meng, L.
Wu, Q. H.
Yong, Z. Z.

A Flexible On-line Scheduling Algorithm for Batch Machine with Infinite Capacity
Poon, Chung Keung
Yu, Wenci

Complexity Results for Flow-Shop Problems with a Single Server
Brucker, Peter
Knust, Sigrid
Wang, Guoqing

Optimal Solution of a General Investment and Consumption Problem
Zhang, Weiguo*
Nie, Zankan

Optimization for Monetary and Fiscal Policies in a Monetary Economy
Hu, Zhaneng*
Xu, Juping

Optimum Design of Discrete Reinforced Concrete Sections Using Genetic Algorithms
Chau, Kwok Wing
Albermani, F.

The Application of Optimization Method in Agriculture
Zhao, Qingzhen
Wang, Changyu

(Archive: LSB LT1)

Mini-Symposium on Reformulation Methods: II
Organizer: Fulushima, Masao
Organizer: Qi, L.Q.
Organizer: Yang Yufei
Chair: Pang, J. S.
Chair: Ralph, Danny
A Hybrid Neural-Genetic Algorithm for Frequency Assignment Optimization in Satellite Communications
Salcedo-Sanz, Sancho
Bousono-Calzon, Carlos

Path Tracking for a 6 DOF Tensegrity Structure Using a Neural Network
Kanchanasaratool, Narongsak
Williamson, Darrell

Invited Session on Applications of Optimization in Signal Processing
Organizer and Chair: Leung, Y.H.

Efficient Design of Robust Pulse Shapes for Communications Using Average Performance Criteria
Davidson, Timothy N.

An Application of Second-Order Cone Programming to Robust Adaptive Beamforming
Vorobyov, Sergiy A.
Gersman, Alex B.
Luo, Zhi-Quan

Fisher Information Decision Directed Quantisation: A Fast Sub-Optimal Solution to Discrete Optimization Problems with Applications in Wireless Communications
Manton, Jonathan H.
Vo, Ba-Ngu
Ali, Hassan

Optimum Digital Pre-Compensation in IQ Modulators Using State-Space Approach
Lim, A. G.
Sreeram, V.

A Unified Quadratic Semi-Infinite Programming Approach to Time and Frequency Domain Constrained Digital Filter Design
Tseng, C. H.
Liu, Y.
Teo, K. L.

ILP-Based Approximations for Retargetable Code Optimization
Kastner, Daniel

Mini-Symposium on Generalized Convexity and Nonlinear Lagrangians: II
Organizer: Schaible, Siegfried
Organizer: Yang, Xinmin
Organizer: Rubinov, Alex M.
Chair: Rubinov, Alex M.
A Comparison of Non-Linear Lagrange and Penalty Functions for Problems with a Single Constraint
Rubinov, Alex M.
Giri, J. S.*

Exact Penalty Representations with Modified Nonlinear Penalty Functions
Yang, X. Q.*
Huang, X. X.

Parametric Versions of Ekeland's Variational Principle and Selection Theorems
Georgiev, Pando Gr.

The Equivalence of Nonlinear Convolution Functions
Rubinov, Alex M. *
Gasimov, Rafail N.

On Saddle Points of Augmented Lagrangian for Nonconvex Programming
Sun, X. L.*
Li, D.

Preemptive Scheduling with Agreeable Due Dates to Minimize Total Tardiness
Tian, Z.J.
Ng, C. T.
Cheng, T.C.E.

Preemptive Scheduling with Availability Constraints to Minimize Total Weighted Completion Times
Wang, Guoqing
Sun, Hongyi
Chu Chenbin

Scheduling Two Groups of Jobs with Incomplete Information
Zhang, Guochuan
Cai, Xiaoqiang*
Wong, C.K.

Two-Machine Flowshop Batching and Scheduling
Lin, Bertrand M.T.
Cheng, T.C.E.

The Economic Lot Scheduling Problem without Capacity Constraints
Yao, Ming-Jong

Nonlinear Programming Model for an Integrated Production-Inventory System with Variable Production Rates
Lin, Gary C.

The Application of Sequential Linear-Quadratic Programming Method to the Optimum Design of Locomotive and Diesel Engine
Ding, Pei Jie
Wu, Chang Hua

New Training Methods in Hidden Markov Models for Analysis Biological Sequences
Gu, Yanhong*
Shi, Dinghua
Wang, Yifei

Error-Center-Based Optimization --- A New Algorithm for Support Vector Machine Training
Meng, L.
Wu, Q. H.

The Function $g(c_0, x)$ and Its Applications
Bai, Guozhong

Optimization of the Gear Shifting Map
Pfau, Ralf Uwe

Dispatching Vehicles in A Mega Container Terminal
Bish, Ebru K.
Chen, F. Y.
Leong, Y. T.
Liu, Q. Z.
Nelson, B. L.
Ng, J. W. C.
Simchi-Levi, D.

2001 ICOTA
Sunday, December 16

Plenary Lectures
Venue: SHB Auditorium (Rm 508)

Plenary Lecture IV 8:30-9:10
From Local to Global and From Convexity to Non-convexity in Optimization
Pardalos, P. M
University of Florida
Chair: Li, D.
<table>
<thead>
<tr>
<th>Session</th>
<th>Time</th>
<th>Title</th>
<th>Authors</th>
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<tbody>
<tr>
<td>Plenary Lecture V</td>
<td>9:10-9:50</td>
<td>The Flight from Earth to Mars and Back via Optimal Trajectories</td>
<td>Miele, Angelo Rice University Chair: Li, D.</td>
</tr>
<tr>
<td>SUNA1-1</td>
<td>10:10</td>
<td>Smoothing Methods in Mathematical Programs with Complementarity Constraints (MPCCs)</td>
<td>Ralph, Daniel</td>
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<tr>
<td>SUNA1-2</td>
<td>10:30</td>
<td>A Smoothing Method for a Mathematical Program with P-Matrix Linear Complementarity Constraints</td>
<td>Chen, Xiaojun* Fukushima, Masao</td>
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<tr>
<td>SUNA1-3</td>
<td>10:50</td>
<td>Stability Analysis of Proximal Projection Algorithms for Nonsmooth Optimization Problems</td>
<td>Alber, Yakov</td>
</tr>
<tr>
<td>SUNA1-4</td>
<td>11:10</td>
<td>One Scattered Data Spline Defined by Optimization Properties and Its Application</td>
<td>Guan, Lutai* Lui, Xiaoming Lu, Feng</td>
</tr>
<tr>
<td>SUNA1-5</td>
<td>11:30</td>
<td>A Strongly Semismooth Integral Function and Its Applications</td>
<td>Qi, Liqun Yin, Hongxia*</td>
</tr>
<tr>
<td>SUNA1-6</td>
<td>11:50</td>
<td>Superlinear Convergence of a Class of Infeasible Interior Point Methods for Semidefinite Programming</td>
<td>Liu, Taowen</td>
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<tr>
<td>SUNA2</td>
<td>10:10-12:10</td>
<td>Mini-Symposium on Financial Optimization: I</td>
<td>Organizer and Chair: Wang, Shouyang</td>
</tr>
<tr>
<td>SUNA2-1</td>
<td>10:10</td>
<td>Characterizations of Weak No-Arbitrage in Frictional Markets</td>
<td>Deng, Xiaotie Li, Zhongfei* Wang, Shouyang Yang, Haifang</td>
</tr>
<tr>
<td>SUNA2-2</td>
<td>10:30</td>
<td>Complexity of Scenario Based Portfolio Optimization Model with VaR Objective</td>
<td>Yang, Xiaoguang* Tao, Shuo Liu, Rongjun</td>
</tr>
<tr>
<td>SUNA3</td>
<td>10:10-11:50</td>
<td>Invited Session on Recent Advances in Global Optimization</td>
<td>Organizer and Chair: Kuno, Takahito</td>
</tr>
<tr>
<td>SUNA3-1</td>
<td>10:10</td>
<td>Global Optimization Method for Solving the Minimum Maximal Flow Problem</td>
<td>Gotoh, Junya Thoai, Nguyen Van Yamamoto, Yoshitsugu</td>
</tr>
<tr>
<td>SUNA3-2</td>
<td>10:30</td>
<td>Global Optimization of Mixed-Integer Nonlinear Programming Problems in Chemical Processes</td>
<td>Zhu, Yushan</td>
</tr>
<tr>
<td>SUNA3-3</td>
<td>10:50</td>
<td>Efficient Tabu Search-Based Procedure for Optimal Redundancy Allocation in Complex System Reliability</td>
<td>Caserta, Marco Ryoo, Hong Seo</td>
</tr>
<tr>
<td>SUNA3-4</td>
<td>11:10</td>
<td>Conical Partition Algorithm for Maximizing the Sum of Several dc Ratios</td>
<td>Yang, Dai Shi, Jianming</td>
</tr>
<tr>
<td>SUNA3-5</td>
<td>11:30</td>
<td>A Finite Algorithm for Separable Reverse Convex Programs</td>
<td></td>
</tr>
</tbody>
</table>
Kuno, Takahito

**SUNA4** 10:10-12:10
(Venue: LSB LT4)

**Mini-Symposium on Generalized Convexity and Nonlinear Lagrangians: III**
Organizer: Schaible, Siegfried
Organizer: Yang, Xinmin
Organizer: Rubinov, Alex M.
Chair: Schaible, Siegfried

- **SUNA4-1** 10:10
  *Connectedness of the Solution Set for the Weak Vector Equilibrium Problem*
  Cheng, Yonghong*
  Lin, Hongwei
  Zhu, Daoli

- **SUNA4-2** 10:30
  *On the Stability of Generalized Vector Quasi-Variational Inequality Problems*
  Li, S. J.*
  Chen, G. Y.
  Teo, K. L.

- **SUNA4-3** 10:50
  *Generalizations of Pseudolinear Functions for Optimization and Variational Inequalities*
  Schaible, Siegfried

- **SUNA4-4** 11:10
  *Scalarization Methods for Vector Prevariational Inequality*
  Mishra, Shashi K.

- **SUNA4-5** 11:30
  *On the Stampacchia and Minty Variational-Like Inequalities*
  Mishra, Shashi K.*
  Rueda, Norma G.

- **SUNA4-6** 11:50
  *On the Existence and Approximation of Solutions for Set-Valued Variational Inclusions*
  Zeng, Liu-Chuan*

**SUNA5** 10:10-12:10
(Venue: LSB LT5)

**Invited Session on Optimization Theory and Related Topics**
Organizer and Chair: Lai, Hangchin
Organizer and Chair: Tanaka, Tamaki

- **SUNA5-1** 10:10
  *Parameter-Free Dual Models for Fractional Programming with Generalized Invexity*
  Lai, Hang-Chin

- **SUNA5-2** 10:30
  *Some Observations of Iterative Methods for Approximation of Fixed Points of Nonexpansive Nonself-Mappings*
  Matsushita, Shin-Ya*
  Kuroiwa, Daishi

- **SUNA5-3** 10:50
  *Some Existence Theorems of Set Optimization with Weighted Criteria*
  Kuroiwa, Daishi

- **SUNA5-4** 11:10
  *Well-Defined Efficient Points in the Vector Optimization*
  Georgiev, Pando Gr.*
  Todorov M.
  Helbig S.
  Tanaka T.

- **SUNA5-5** 11:30
  *Existence Results for Cone Saddle Points by Using Vector Variational-Like Inequalities*
  Kalmoun, El Mostafa
  Kimura, Kenji
  Tanaka, T.*

- **SUNA5-6** 11:50
  *Estimation of Failure Probability Using Semi-Definite Programming*
  Konno, H.
  Kawadai, N.
  Wu, D.

**SUNA6** 10:10-12:10
(Venue: LSB LT6)

**Contributed Session on Control**
Chair: Chu, D. L.

- **SUNA6-1** 10:10
  *On the Influence of the Observability and Controllability to the Optimal Control Quality*
  Dimitrov, Boyan
  Green, Jr., David
  Rykov, Vladimir

- **SUNA6-2** 10:30
  *A Constraint Optimization Problem in Singular Control Theory: Where is the Nearest Non-Index-at-Most-One Matrix Pencil?*
  Chu, Delin

- **SUNA6-3** 10:50
  *Global Approximate Controllability and Finite Dimensional Exact Controllability of Parabolic Equation with Mobile Point Controls*
  Sun, Bo
  Zhao, Yi

- **SUNA6-4** 11:10
  *Control Parametrization Enhancing Technique for Solving a Special Class of ODE with State Dependent Switch*
  Lee, Heung Wing Joseph
  Teo, K.L.

- **SUNA6-5** 11:30
  *A Numerically Reliable Non-Iterative Method for the Computation of the Infimum in H^-Optimization*
  Chu, Delin

- **SUNA6-6** 11:50
  *The Nonsmooth Optimizations on Reachable Sets of Nonlinear Systems*
Plenary Lectures
Venue: SHB Auditorium (Rm 508)

Plenary Lecture VI
1:30-2:10
General Problem Solvers for Combinatorial Optimization Problems by Metaheuristics
Ibaraki, Toshihide
Kyoto University
Chair: Cai, X. Q.

SUNM1 2:30-3:30
(Venue: LSB LT1)
Mini-Symposium on Reformulation Methods: IV
Organizer: Fukushima, Masao
Organizer: Qi, L.Q.
Organizer: Yang Yulei
Chair: Rubinov, A.
Chair: Wu, Soon-Yi

SUNM1-1 2:30
Strong Semismoothness of Matrix Functions and Matrix Optimization Problems
Sun, Jie*
Sun, Defeng
Qi, Liqun

SUNM1-2 2:50
Quasiconjugate Method for Reverse Convex Programming
Shi, Jianming

SUNM1-3 3:10
An Active-Set Projected Trust Region Algorithm for Nonsmooth Equations with Bounded Constraints
Qi, Liqun
Tong, Xiaojiao*
Li, Donghui

SUNM2 2:30-3:50
(Venue: LSB LT2)
Mini-Symposium on Financial Optimization: II
Organizer: Wang, Shouyang
Chair: Deng, Xiaotie

SUNM2-1 2:30
Impact on the Efficient Frontier of Portfolio of Varying Capital Structure
Chen, Shou*
Deng, Xiaotie
Liu, Weiguo
Wang, Shouyang

SUNM2-2 2:50
No-Arbitrage and Optimal Consumption-Portfolio with Transaction Cost
Lai, K. K.
Wang, Shou-Yang
Yu, Mei*

SUNM2-3 3:10
On Universal Portfolios

SUNM3 2:30-3:50
(Venue: LSB LT3)
Invited Session on Linear and Nonlinear Programming
Organizer and Chair: Yuan, Yaxiang

SUNM3-1 2:30
An Extended Class of Nonlinear Conjugate Gradient Methods
Dai, Y. H.*
Yuan, Ya-xiang

SUNM3-2 2:50
A New Trust Region Algorithm with Trust Region Radius Converging to Zero
Fan, Jin-yan*
Yuan, Ya-xiang

SUNM3-3 3:10
Wide-Neighborhood-Following Algorithms for Linear Programming
Ai, Wenbao

SUNM3-4 3:30
On the Replacement Criteria for Unary Optimization
Chen, Lihua*
Zhang, Jianzhong
Deng, Naiyang

SUNM4 2:30-3:50
(Venue: LSB LT4)
Mini-Symposium on Generalized Convexity and Nonlinear Lagrangians: IV
Organizer: Schaible, Siegfried
Organizer: Yang, Xinmin
Organizer: Rubinov, Alex M.
Chair: Yang, X. Q.

SUNM4-1 2:30
Φ-Convexity for Fuzzy Sets
Syau, Yu-ru

SUNM4-2 2:50
Convexification, Concaevification for Some Classes of Global Optimization Problems
Wu, Z. Y.*
Zhang, L. S.
Bai, F.S.

SUNM4-3 3:10
Generalized Invexity and Generalized Monotonicity
Yang, X. M.*
Yang, X. Q.
Teo, K. L.
SUNM4-4  3:30
Hadamard-Type Inequalities for Quasiconvex Functions in Higher Dimensions
Rubinov, Alex M.  
Dutta, J.

SUNM5  2:30-3:50  
(Venue: LSB LT5)  
Invited Session on Least Squares and Quadratic Forms
Organizer and Chair: Rubinov, Alex M.  
Organizer and Chair: Dutta, J.

SUNM5-1  2:30  
Endoharmony in the Method of Least Squares
Iri, Masao

SUNM5-2  2:50  
Local Convergence Properties of Structured Quasi-Newton Methods for Nonlinear Least Squares Problems
Yabe, Hiroshi  
Ogasawara, Hidehiko

SUNM5-3  3:10  
On Cones of Nonnegative Quadratic Functions
Zhang, Shuzhong  
Sturm, Jos F.

SUNM5-4  3:30  
A Variant of the Vavasis-Ye Layered Least Squares Step Interior Point Method for Linear Programming
Monteiro, Renato D. C.  
Tsuchiya, Takashi

SUNM6  2:30-3:50  
(Venue: LSB LT6)  
Invited Session on Geometric Theory of Optimization
Organizer and Chair: Banks, S. P.

SUNM6-1  2:30  
An Overview of Geometric Optimization Theory --- Lagrangian Manifolds, Maslov Index and Viscosity Solutions
Banks, S. P.

SUNM6-2  2:50  
Optimal Control of Nonlinear Systems by Orthogonal Expansion
Tomas Rodriguez, M.  
Banks, S. P.

SUNM6-3  3:10  
Approximations to Characteristics of the HJB Equation and Viscosity Solutions
Cimen, T.  
Banks, S. P.

SUNM6-4  3:30  
Lagrangian Manifolds and Nonlinear Optimal Regulators
McCaffrey, D.  
Banks, S. P.

SUNPI  4:10-5:50  
(Venue LSB LT1)  
Mini-Symposium on Reforulation Methods: V
Organizer: Fulushima, Masao  
Organizer: Qi, L. Q.  
Organizer: Yang Yufei  
Chair: Billups, Stephen C.  
Chair: Sun, Jie

SUNPI-1  4:10  
Penalization and Reforulation in Constrained Non-smooth and Nonconvex Optimization
Rubinov, Alex M.

SUNPI-2  4:30  
Proximal Point Algorithm for Minimization of DC Function
Sampaio, Raimundo J. B. de  
Sun, Wenyu*

SUNPI-3  4:50  
Global Search Strategy for Solving Nonconvex Optimization Problems by Using a Reforulation Method
Denji, Han  
Li, Wu*

SUNPI-4  5:10  
New Step-Size Rules for Optimization Problems
Wei, Zengxin*  
Qi, L. Q.

SUNPI-5  5:30  
Smoothing Trust Region Methods for Nonlinear Complementarity Problems with $P_0$-Functions
Yang, Yufei*  
Qi, Liqun

SUNP2  4:10-6:10  
(Venue: LSB LT2)  
Mini-Symposium on Financial Optimization: III
Organizer: Wang, Shouyang  
Chair: Lai, K. K.

SUNP2-1  4:10  
Portfolio Selection Models with Transaction Costs: Crisp Case and Interval Number Case
Lai, K. K.  
Wang, Shouyang  
Zeng, Jianhua*  
Zhu, Shushang

SUNP2-2  4:30  
Comparison Between the Complexities of Chinese and Hong Kong Stock Markets
Song, Xuefeng*  
Feng, Xia

SUNP2-3  4:50  
A Method for Portfolio Choice with Transaction Costs
Yang, Fengmei*  
Wang, Shouyang

SUNP2-4  5:10  
Robust Optimal Portfolios
SUNP3  4:10-6:10
(Venue: LSB LT3)
Contributed Session on Global Optimization
Chair: Shimizu, Kiyotaka

SUNP3-1  4:10
A Sequential Constrained Minimization Method for Constrained Global Optimization
Ng, Chi-Kong*
Li, Duan

SUNP3-2  4:30
Dynamic Mathematical Programming --- A New Global Optimization Algorithm by Dynamic Control
Shimizu, Kiyotaka
Suzuki, Kosuke

SUNP3-3  4:50
Stochastic Methods for Global Optimization and Numerical Experience
Yang, Qingzhi
Zhao, Jingling
Li, Xiaoj

SUNP3-4  5:10
Complexity of Random Search Algorithms for Global Optimization --- A Theoretic Framework
Shi, Dinghua

SUNP3-5  5:30
A Method In Searching Roots And Extremes
Sheng, Pingxing

SUNP3-6  5:50
A Parallel Software Package for Nonlinear Global Optimization
Hu, Chensh
Kearfott, Baker
Xu, Shanying
Yang, Xiaoguang

SUNP4  4:10-6:10
(Venue: LSB LT4)
Mini-Symposium on Generalized Convexity and Nonlinear Lagrangians V
Organizer: Schaible, Siegfried
Organizer: Yang, Xinmin

SUNP5  4:10-6:10
(Venue: LSB LT5)
Contributed Session on Nonlinear Programming I
Chair: Muramatsu, Masakazu

SUNP5-1  4:10
Duality Between Entropy Regularization and Exponential Penalty Methods
Pan, ShaoHua*
Li, Xingsi

SUNP5-2  4:30
Karush-Kuhn-Tucker Systems of Constrained Minimax Problem
Gao, Yan

SUNP5-3  4:50
A Unified Class of Directly Solvable Semidefinite Programming Problems
Muramatsu, Masakazu

SUNP5-4  5:10
A Sequential Linearization Algorithm for Solving Bilevel Programming Problems
Liu, G.S.*
Wang, Shouyang
Zhang, J. Z.

SUNP5-5  5:30
An extended Entropy Method for Min-Max Problems and Linear Semi-Infinite Programming
Yang, Qingzhi
Yu, Hong

SUNP5-6 5:50
Smoothing Techniques for Min-Max Problems via Exponential Penalty Methods
Li, Xinggi* Zhang, Peiai
Pan, Shaohua

SUNP6 4:10-5:50
(Venue: LSB LT6)
Contributed Session on Multiobjective Optimization
Chair: Nakayama, Hirotaka

SUNP6-1 4:10
Goal Programming Model for Patient Diet Problems
Jablonsky, Josef

SUNP6-2 4:30
Estimating Both Weights and Utilities in Multicriteria Decision Analysis Through Evidential Reasoning and Nonlinear Programming
Yang, J. B.
Deng, M.
Xu, D. L.

SUNP6-3 4:50
Multiobjective Genetic Algorithms Applied to Optimization Design of a Centrifugal Compressor Impeller
Li, Jun
Liu, Lijun
Tsukamoto, Hiroshi

SUNP6-4 5:10
Optimization with Unknown Objective Functions Using Computational Intelligence --- A Comparative Study with RSM
Nakayama, Hirotaka
Arakawa, Masao
Sasaki, Rie

SUNP6-5 5:30
Support Vector Machines Formulated as Multi Objective Linear Programming
Nakayama, Hirotaka
Asada, Takeshi

Ye, Yinyu
Chair: Wu, Henry

Plenary Lecture VIII 9:10-9:50
L. Splines for Shape-preserving Multiscale Geometric Modeling
Fang, Shu-Cherng
Chair: Wu, Henry

MONA1 10:10-12:10
(Venue: LSB LT1)
Contributed Session on Dynamic Optimization and Dynamic Game
Chair: Piuovskiy, A. B.

MONA1-1 10:10
Controlled Jump Markov Processes with Interventions
Piuovskiy, A. B.

MONA1-2 10:30
An Algorithm for Multiparametric Dynamic Optimization
Sakilis, Vassilis
Perkins, John
Pistikopoulos, Stratos

MONA1-3 10:50
Characteristic Functions for Dynamic Games
Petrosjan, Leon A.
Yeung, David W. K.
Zaccour, George

MONA1-4 11:10
Infinite Overlapping-generations Stochastic Differential Games with Uncertain Number and Types of Players
Yeung, David W. K.

MONA1-5 11:30
The Optimal Model of Technology Innovation Diffusion
Xu, Jiuping*
Hu, Minan

MONA1-6 (Cancelled) 11:50
Optimal Stopping Model of Project's Investment Timing Under Uncertainty
Huang, Wei

MONA2 10:10-12:10
(Venue: LSB LT2)
Mini-Symposium on Financial Optimization: IV
Organizer: Wang, Shouyang
Chair: Shi, Yong

MONA2-1 10:10
Portfolio Selection Based on the Internet
Dong, Jichang*
Du, Helen S.
Wang, Shouyang

MONA2-2 10:30
Fuzzy Credible Degree Pricing Method for Contingent Claim in Finite Security Market with Linear Programming
Wu, Chongfeng
Qin, Xuezhi*

2001 ICOTA
Monday, December 17
MONA2-3 10:50
Optimal Liquidation Strategy of the Open-end Fund
Liu, Hai-long*
Wu, Chongfeng
Zhong, Li-ming

MONA2-4 (Cancelled) 11:10
The Multi-Period Portfolio Model with Skewness for a Property-Liability Insurance Company
Wang, Chunfeng*
Yang, Jianlin

MONA2-5 11:30
Classification for Three-Group of Credit Cardholders’ Behavior via A Multiple Criteria Approach
Peng, Yi
Shi, Yong*
Xu, Weixuan

MONA2-6 11:50
A Group Multi-Objective Decision Making Model for Portfolio Investment
Hu, Yu-Da
Qin, Zhi-Lin*

MONA3 10:10-11:30
(Venue: LSB LT3)
Invited Session on Nonconvex Optimization: Local and Global
Organizer and Chair: Shi, Jianming

MONA3-1 10:10
On a Parameter-Involved Iterative Algorithm Solving Nonlinear Systems
Li, Chenguang

MONA3-2 10:30
Barrier Functions Applied to Non-Convex Optimization
Liu, Xian

MONA3-3 10:50
Optimization over the Efficient and Weakly Efficient Sets By D.C. Programming
Le Thi, Hoai An

MONA3-4 11:10
The DC (Difference of Convex Functions) Programming and DCA Revisited with DC Models of Real World Nonconvex Optimization Problems
Pham Dinh, Tao
Le Thi, Hoai An

MONA4 10:10-12:10
(Venue: LSB LT4)
Mini-Symposium on Generalized Convexity and Nonlinear Lagrangians: VI
Organizer: Schaible, Siegfried
Organizer: Yang, Ximmin
Organizer: Rubinov, Alex M.
Chair: Craven, B. D.

MONA4-1 10:10
Stability of Convex Multiobjective Programs to Small Perturbations

MONA5 10:10-12:10
(Venue: LSB LT5)
Contributed Session on Nonlinear Programming II
Chair: Eberhard, A.

MONA5-1 10:10
Porosity and Differentiability in Smooth Banach Spaces
Georgiev, Pando Gr.

MONA5-2 10:30
Second-order Clarke Subdifferential of $C^{1,1}$ Functions
Georgiev, Pando Gr.

MONA5-3 10:50
Some Results in the Calculus of Subhessians
Eberhard, Andrew
Nyblom, M.
Sivakumaran, R.

MONA5-4 11:10
An Inexact Newton Method Derived from Efficiency Analysis
Deng, Naiyang*
Xue, Yi
Zhang, Jianzhong
Zhong, Ping

MONA5-5 11:30
Perturbation for Broyden Algorithms
Pu, Dingguo
Yu, Dexing*

MONA5-6 11:50
**Equilibrium Problems with Applications to Eigenvalue Problems**  
Chadli, O.  
Wong, N. C.  
Yao, J. C.

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<th>MONA6</th>
<th>10:10-12:10</th>
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<tr>
<td><strong>(Venue: LSB LT6)</strong></td>
<td><strong>Invited Session on Optimization in Engineering Structure</strong></td>
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<tr>
<td>Organizer: Sui, Yongkang</td>
<td>Chair: Sui, Yongkang</td>
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<tr>
<td>Chair: Chung, K. C.</td>
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<tr>
<td>MONA6-1</td>
<td>10:10</td>
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</tbody>
</table>
| **Optimal Design of Stepped Annular Plates for Minimax Deflection** | Chung, K.C.  
Wang, C.M. |
| MONA6-2 | 10:30 |
| **Modeling and Optimization of Topology Design for Skeleton and Continuum Structure** | Sui, Yun Kang |
| MONA6-3 | 10:50 |
| **Substructure Method of Displacement Sensitivity Analysis** | Wan, Chaoyan  
Zhao, Wenzhong*  
Xie, Suming |
| MONA6-4 | 11:10 |
| **Applications and Difficulties of Structural Optimum Design in Railway Vehicles** | Xie, Suming  
Zhao, Wenzhong*  
Wan, Chaoyan |
| MONA6-5 | 11:30 |
| **Reliability-Based Structure Optimum Design of Offshore Jacket Platforms** | Feng, Sheng*  
Song, Yupu  
Zhai, Gangjun |
| MONA6-6 | 11:50 |
| **The Fuzzy Shape Optimum Design for Jacket Platforms** | Zhai, Gangjun*  
Liu, Xiang-bin  
Feng, Sheng  
Xu, Facong |

**MONM1**  
1:30-3:50  
(Venue: LSB LT1)  
**Invited Session on Optimization in Wireless Communication**  
Organizer and Chair: Nordholm, Sven

| MONM1-1 | 1:30 |
| **A Robust Approach to the Synthesis of Dolph-Chebyshev Beampatterns for Uniform Circular Arrays** | Lau, B. K.  
Leung, Y. H.* |

**MONM2**  
1:30-3:50  
(Venue: LSB LT2)  
**Invited Session on Control Theory, Techniques and Applications**  
Organizer and Chair: Liu, Wanquan

| MONM2-1 | 1:30 |
| **Optimization of Fired Rules of Fuzzy Systems Using Genetic Algorithms** | Chan, P. T.  
Rad, A. B. |
| MONM2-2 | 1:50 |
| **Blind Adaptive Equalization of FIR and IIR Systems** | Thorne, Jeremy S.  
Moore, John B. |
| MONM2-3 | 2:10 |
| **Lyapunov Equations for Stable Singular Systems** | Li, Shujin  
Liu, Wanquan |
<p>| MONM2-4 | 2:30 |</p>
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<tr>
<th>Session</th>
<th>Title</th>
<th>Author(s)</th>
<th>Time</th>
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<tr>
<td>MONM2-5</td>
<td>Frequency-Weighted Model Reduction Methods for Discrete Systems and Error Bounds</td>
<td>Wang, G. Sreeram, V. Lim, A. G.</td>
<td>2:50</td>
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<td>MONM2-6</td>
<td>Asymptotic Stability and Stabilization for Descriptor Systems via Lyapunov Methods</td>
<td>Yao, B. Zhang, Q. L. Yang, D. M. Sreeram, V.</td>
<td>3:10</td>
</tr>
<tr>
<td>MONM2-7</td>
<td>An Optimal Control Approach to Therapeutic Intervention in HIV Infection</td>
<td>Wong, K.H.</td>
<td>3:30</td>
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<tr>
<td>MONM3-1</td>
<td>Graphs and Network Optimization</td>
<td>Caccetta, L.</td>
<td>1:30</td>
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<tr>
<td>MONM3-2</td>
<td>A Numerical Technique for Optimal Boundary Control of a Parabolic System</td>
<td>Chuedoung, M. Wu, Y. H. Siew, P. F.</td>
<td>1:50</td>
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<tr>
<td>MONM3-6</td>
<td>Optimal Successive Estimation of Observed Data</td>
<td>Torokht, A. Howlett, P. Pearce, C.</td>
<td>3:10</td>
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<tr>
<td>MONM3-7</td>
<td>A Stabilized Gradient Flow Approach to Constrained Nonlinear Programming Problems</td>
<td>Wang, S. Yang, X. Q. Teo, K. L.</td>
<td>3:30</td>
</tr>
<tr>
<td>MONM4-1</td>
<td>A Comparative Study on Algorithms for Vehicle Routing Problems with Stochastic Demands</td>
<td>Teng, S.Y. Ong, H.L. Huang, H.C.</td>
<td>1:30</td>
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<tr>
<td>MONM4-2</td>
<td>A Modified Ant Colony System for Traveling Salesman Problems</td>
<td>Lan, Kuen-Ming Chiu, Chui-Yu Chen, Mu-Chen</td>
<td>1:50</td>
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<tr>
<td>MONM4-3</td>
<td>Approximate Sequencing for Variable Length Tasks</td>
<td>Cai, Mao-cheng* Deng, Xiaotie Wang, Lusheng</td>
<td>2:10</td>
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<tr>
<td>MONM4-4</td>
<td>Comparison of Meta-heuristics for the Two-dimensional Orthogonal Packing Problem</td>
<td>Leung, T.W. Chan, Chi Kin Trout, Marvin D.</td>
<td>2:30</td>
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<tr>
<td>MONM4-5</td>
<td>Complexity of Some Reverse Network Problems with Bound Constraints</td>
<td>Yang, Xiaoguang</td>
<td>2:50</td>
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<tr>
<td>MONM4-6</td>
<td>Optimal Path Planning Based on Maximum Visibility</td>
<td>Wang, Paul K.C.</td>
<td>3:10</td>
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<td>MONM4-7</td>
<td>Solution Concepts in Minimum Spanning Tree Games and Their Generalized Games</td>
<td>Tsurumi, Masayo Tanino, Tetsuzo Inuiuchi, Masahiro</td>
<td>3:30</td>
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</table>
| MONM5-1 | | | 1:30-3:30
Invited Session on
1. Lot-Sizing, Telecommunications Planning and Data Modeling
Organizer and Chair: Leung, Janny

MONM5-1 1:30
Dynamic Lot Size Problems with One-Way Product Substitution
Hsu, Vernon N.
Li, Chung-Lun
Xiao, Wen-Qiang

MONM5-2 1:50
A Modified Dual Ascent Procedure with Valid Inequalities for the Multi Level Concentrator Location Problem
Murthy, Ishwar
Sastry, Trilochan

MONM5-3 2:10
A Location, Routing and Assignment Problem with Cost and Load Balancing Criteria
Lin, Carrie K. Y.
Chow, C. K.

MONM5-4 2:30
Data Modeling in Hospital Lift System Simulation
Chu, Sydney C. K.
Lin, Carrie K.Y.
Lam, S. S.

2. Network Design, Routing and Scheduling
Organizer and Chair: Leung, Janny

MONM5-5 2:50
Uncapacitated Multicommodity Network Design Problem with Zero Flow Cost
Ng, Ada S. F.
Leung, Janny M. Y.
Cai, Xiaoqiang

MONM5-6 3:10
Map-Based Logistics Support with Stochastic Routing
Wong, Jacky C. F.
Leung, Janny M. Y.
Cheng, C. H.
Fung, Paul T. W.

MONM6 1:30-3:50
(Venue: LSB LT6)
Invited Session on Optimization Techniques in Information Processing and Defense Applications
Organizer and Chair: Lim, Cheng-Chew

MONM6-1 1:30
A Comparative Study and Extension to K-Medoids Algorithms
Chu, Shu-Chuan
Roddick, John F.
Pan, J. S.

MONM6-2 1:50
A Note on Optimal RED (Random Early Detection) Queue Management
Hu, J.
Walkiewicz, M.

 Nelson, R.
 Sekercioglu, A.

MONM6-3 2:10
Implementation of RSA Encryptor Using DSP --- A Maximum Speed Oriented Approach
Hu, J.
Wen, Qiang
Xi, Zhiping

MONM6-4 2:30
K-means Clustering Applied to Texture Segmentation with Complex Wavelet Features
Ng, Brian W.
Bouzerdoum, Abdesselam

MONM6-5 2:50
On Initialising nu-Support Vector Machine Training
Chew, Hong-Gunn
Lim, Cheng-Chew
Bogner, Robert E.

MONM6-6 3:10
Sensitivity of the PMHT-c Algorithm to Classifier Model Mismatch
Davey, S. J.
Gray, D. A.

MONM6-7 3:30
Signal Separation Using Multi-Rate Signal Processing
Nordberg, J.
Dam, H. H.
Nordholm, S.

MONP1 4:10-5:10
(Venue: LSB LT1)
Invited Session on Optimization in Statistics
Organizer and Chair: Fang, K. T.

MONP1-1 4:10
Optimization in Statistical Experimental Design
Fang, Kai-Tai

MONP1-2 4:30
Applications of the Optimization Heuristic Threshold Accepting in Statistics
Winker, Peter

MONP1-3 4:50
The Threshold Accepting Heuristic for Index Tracking
Gilli, Manfred
Kellezi, Evis

MONP2 4:10-5:30
(Venue: LSB LT2)
Invited Session on Conic Optimization: Method and Applications
Organizer and Chair: Zhang, Shuzhong

MONP2-1 4:10
Optimal Transceiver Design via Convex Programming
Luo, Zhi-Quan

MONP2-2 4:30
A Revisit to Primal-Dual Large-Update Interior-Point Methods for Linear Optimization
Peng, Jiming
Terlaky, Tamas

MONP2-3 4:50
Robust Versions of Convex Quadratic and Conic-Quadratic Problems
Ben-Tal, A.
Nemirovski, A.
Roos, C.

MONP2-4 5:10
Semidefinite Programming for Global Quadratic Optimization
Ye, Y.

MONP3 4:10-5:10
(Venue: LSB LT3)
Invited Session on Electricity Markets
Organizer and Chair: Ralph, Danny

MONP3-1 4:10
Modeling Optimal Offers in Electricity Markets
Anderson, E. J.
Xu, H.*

MONP3-2 4:30
Market Distribution Functions in the Electric Power Industry
Philpott, A.
Pritchard, Geoffrey*
Neame, P.
Zakeri, G.

MONP3-3 4:50
Nash Equilibria for Games in Competitive Electricity Markets Under Network Constraints
Hu, Xinmin*
Ralph, Daniel

MONP4 4:10-5:30
(Venue: LSB LT4)
Invited Session on Optimization in Supply Chain
Organizer and Chair: Yan, Houmin

MONP4-1 4:10
The Stochastic Knapsake Revisited, with Applications to Dynamic Pricing
Yao, David D.

MONP4-2 4:30
Newsvendor Problem with Mean-Variance Objectives
Choi, Tsan-Ming
Li, Duan
Yan, Houmin

MONP4-3 4:50
Newsvendor Pricing Game
Yan, Houmin
Yao, Li
Sethi, Suresh

MONP4-4 5:10
Optimal Spacecraft Support in Telecommunications Task Scheduling
Kumar, Sanjay
Dawande, Milind
Srisukantrajah, Chelliah
Bagchi, Tapan P

MONP5 4:10-5:10
(Venue: LSB LT5)
Contributed Session on Nonlinear Programming III
Chair: Yao, J. C.

MONP5-1 4:10
A Modified Extragradient-Type Method for Variational Inequalities and Verification of the Existence of Solutions
Zhang, Jianzhong
Wang, Yiju
Xiu, Naihua*

MONP5-2 (Cancelled) 4:30
On the Computational Cost of a Hybrid Algorithm for Solving Convex Programming Problems
Shi, Yixin

MONP5-3 4:50
Solvability of Implicit Complementarity Problems
Kalashnikov, Vyacheslav V.
Isac, George

MONP6 4:10-5:30
(Venue: LSB LT6)
Invited Session on Operations Management Applications in Thailand
Organizer: Vairaktarakis, George L.
Chair: Madan, Manohar Shrinivasan

MONP6-1 4:10
Setting Standard Data for Optimal Production Planning
Kutintarat, Issadee*
Kanjanapanyakom, Rachavarn

MONP6-2 4:30
A Heuristic Approach for Solving Dynamic Lot-Sizing Problem in SME
Bunchanartbopit, Jiroat*
Kanjanapanyakom, Rachavarn

MONP6-3 4:50
Effects from Simultaneously Considering Financing Aspects on Project Selection: Implications on the Perfect Capital Market Assumptions
Phusavat, Kongkiti*
Pitakchaicharn, Nipon
Darapanitch, Winitchaya

MONP6-4 5:10
Integration of the Life Cycle Costing Methodology for Capacity Replacement Planning
Phusavat, Kongkiti
Charneethkul, Peerayuth
Asavapaiboon, Thanawan*