

数理解析研究所講究録 1755

非線形解析学と凸解析学の研究

京都大学数理解析研究所

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Nonlinear Analysis and Convex Analysis

August 30 ~ September 1, 2010

edited by Wataru Takahashi and Shigeo Akashi

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Research Institute for Mathematical Sciences

Kyoto University, Kyoto, Japan

This is a report of research done at the Research Institute for Mathematical Sciences, Kyoto University. The papers contained herein are in final form and will not be submitted for publication elsewhere.

The Official Program of the Annual International Workshop on Nonlinear Analysis and Convex Analysis

Research Institute for Mathematical Sciences, Kyoto University
Oiwake-town Kita-Shirakawa, Sakyou-ward, Kyoto-city, JAPAN

This Workshop is officially approved by Kyoto University and financially supported by Research Institute for Mathematical Sciences attached to Kyoto University.

Directed by Wataru Takahashi(Tokyo Institute of Technology and Keio Univ.)
and organaized by Shigeo Akashi(Tokyo Univ. of Science)

Date: This workshop begins at 9:00 on the 30th of August and ends at 15:20 on the 1st of September in 2010.

Place: This workshop is held at Room 420 situated on the 4th floor, while the workshop is in session.

Please refer to www.kurims.kyoto-u.ac.jp/en/access-01.html.

August 30 (Monday)

- 9:00 ~ 9:05 Shigeo Akashi(Tokyo Univ. of Science)
Opening address
- 9:05 ~ 9:35 Hang-Chin Lai(Chung Yuan Univ. and Tsing Hua Univ.)
Optimality conditions for nondifferentiable minimax fractional programming problems
- 9:35 ~ 10:05 Tetsuzo Tanino(Osaka Univ.)
On convexity of cooperative games
- 10:05 ~ 10:35 Koji Aoyama(Chiba Univ.)
Firmly nonexpansive type mappings
- 10:35 ~ 10:45 Tea Break
- 10:45 ~ 11:15 Do Sang Kim*(Pukyong National Univ.)
Yu Jung Lee(Pukyong National Univ.)
Higher order generalized convexity and duality in multiobjective programming involving cones
- 11:15 ~ 11:45 Hidetoshi Komiya(Keio Univ.)
Fixed point properties related to multivalued mappings
- 11:45 ~ 12:15 Fumiaki Kohsaka(Oita Univ.)
On strongly relatively nonexpansive mappings
- 12:15 ~ 13:20 Lunch Time
- 13:20 ~ 13:50 Jong Soo Jung(Dong-A Univ.)
Iterative schemes under some control conditions for nonexpansive nonself-mappings
- 13:50 ~ 14:20 Takanori Ibaraki(Nagoya Univ.)
Fixed point theorems for generalized nonexpansive type mappings and applications

- 14:20 ~ 14:50 Masashi Toyoda(Tamagawa Univ.)
Convergence theorems for maximal monotone operators in Hilbert spaces
- 14:50 ~ 15:00 Tea Break
- 15:00 ~ 15:30 Juei-Ling Ho(Tainan Univ. of Technology)
A solution of the Jacobian problem in Boolean algebra
- 15:30 ~ 16:00 Tomonari Suzuki(Kyushu Institute of Technology)
Recent extensions of the Banach contraction principle
- 16:00 ~ 16:30 Hiromichi Miyake(Yamanashi Univ.)
On almost convergence for vector-valued functions and its application
- 16:30 ~ 17:00 Mau-Hsiang Shih(National Taiwan Normal Univ.)
Dissecting digital neural circuits atlases

August 31 (Tuesday)

- 9:00 ~ 9:30 Sehie Park(Seoul National Univ.)
A history of the Nash equilibrium theorem in the fixed point theory
- 9:30 ~ 10:00 Kichi-Suke Saito*(Niigata Univ.)
Ken-ich Mitani(Niigata Institute of Technology)
Naoto Komuro(Hokkaido Univ. of Education)
Monotonicity of absolute norms and its applications
- 10:00 ~ 10:30 Yasunori Kimura(Tokyo Institute of Technology)
Common fixed point problems and the shrinking projection method
- 10:30 ~ 10:40 Tea Break
- 10:40 ~ 11:10 D. R. Sahu(Banaras Hindu Univ.)
Jen-Chih Yao* (National Sun Yat-sen Univ.)
The Prox-Tikhonov regularization method for the proximal point algorithm
in Banach spaces
- 11:10 ~ 11:40 Koichiro Naito(Kumamoto Univ.)
Complexity and recurrency of continued fractions
- 11:40 ~ 12:10 Shin-ya Matsushita*(Akita Prefectural Univ.)
Li Xu(Akita Prefectural Univ.)
On finite termination of iterative methods
- 12:10 ~ 13:20 Lunch Time
- 13:20 ~ 13:50 Jein-Shan Chen(National Taiwan Normal Univ.)
Analysis of nonsmooth vector-valued functions associated with infinite-dimensional
second-order cones
- 13:50 ~ 14:20 Daishi Kuroiwa(Shimane Univ.)
On constraint qualification for set programming problems
- 14:20 ~ 14:50 Mitsuhiro Hoshino(Akita Prefectural Univ.)
On a measure of ordering and states with absorbing tendencies in self-organizing maps
- 14:50 ~ 15:00 Tea Break
- 15:00 ~ 15:30 Ruey-Lin Sheu(National Cheng-Kung Univ.)
Duality and solutions for quadratic programming over single non-homogeneous
quadratic constraint

- 15:30 ~ 16:00 Sachiko Atsushiba(Yamanashi Univ.)
On the sequences by the hybrid type method and the existence of fixed points
- 16:00 ~ 16:30 Yasuhiro Hara(Osaka Univ.)
A study of fixed points of multivalued maps by topological methods
- 16:30 ~ 17:00 Wataru Takahashi(Tokyo Institute of Technology and Keio Univ.)
Nonlinear mappings in nonlinear analysis and an open problem in fixed point theory

September 1st (Wednesday)

- 9:00 ~ 9:30 Lai-Jiu Lin*(National Changhua Univ.)
Yu-Chia Yeh (National Changhua Univ.)
Variational relation problems with applications
- 9:30 ~ 10:00 Yasuji Takahashi*(Okayama Prefectural Univ.)
Mikio Kato (Kyushu Institute of Technology)
Some geometric constants related with the modulus of convexity of a Banach space
- 10:00 ~ 10:30 Seiichi Iwamoto(Kyushu Univ.)
Yutaka Kimura*(Akita Prefectural Univ.)
The alternate Fibonacci path in quadratic programming
- 10:30 ~ 10:40 Tea Break
- 10:40 ~ 11:10 Yukio Takeuchi(Takahashi Institute for Nonlinear Analysis)
A simple and elementary proof of Brouwer's fixed point theorem
- 11:10 ~ 11:40 Takashi Honda(National Sun Yat-sen Univ.)
The orthogonal decomposition in Banach spaces and its applications to fixed point theory
- 11:40 ~ 12:50 Lunch Time
- 12:50 ~ 13:10 Toshikazu Watanabe*(Graduate School of Science and Technology, Niigata Univ.)
Tamaki Tanaka(Graduate School of Science and Technology, Niigata Univ.)
On Hahn Banach theorem in a partially ordered vector space
- 13:10 ~ 13:30 Satoshi Suzuki*(Shimane Univ.)
Daishi Kuroiwa(Shimane Univ.)
On a sandwich theorem for quasiconvex functions
- 13:30 ~ 13:50 Satoshi Kodama*(Graduate School of Science and Technology, Tokyo Univ. of Science)
Shigeo Akashi(Graduate School of Science and Technology, Tokyo Univ. of Science)
Data compression methods oriented toward Simpson's numerical integral formula
- 13:50 ~ 14:10 Toshiharu Kawasaki
Fixed point theorems for nonexpansive mappings in a vector lattice
- 14:10 ~ 14:20 Tea Break
- 14:20 ~ 14:40 Yusuke Saeki*(Shimane Univ.)
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On constraint qualification for nonlinear programming problems
- 14:40 ~ 15:00 Issei Kuwano*(Graduate School of Science and Technology, Niigata Univ.)
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Existence theorems for saddle points of set-valued maps via nonlinear scalarization methods

15:00 ~ 15:20 Keita Ando*(Graduate School of Science and Technology, Niigata Univ.)
Syuuji Yamada(Graduate School of Science and Technology, Niigata Univ.)
Tamaki Tanaka(Graduate School of Science and Technology, Niigata Univ.)
Tetsuzo Tanino (Graduate School of Engineering, Osaka Univ.)
An inner approximation method for optimization over the weakly efficient set
defined by a closed convex cone

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Nonlinear Analysis and Convex Analysis
RIMS 研究集会報告集

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研究提案者 高橋 渉 (Wataru Takahashi)

研究代表者 明石 重男 (Shigeo Akashi)

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