Nonlinear Analysis and Convex Analysis

RIMS Workshop, August 28–30, 2023

Organizer Yutaka Kimura (Akita Prefectural Univ.)
Koji Aoyama (Chiba Univ.)

Room 111 of Research Institute for Mathematical Sciences, Kyoto University
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PROGRAM

Each name flagged with an asterisk is the speaker of the talk.

Aug. 28 (Mon)

9:50–10:00 Yutaka Kimura (Akita Prefectural Univ.)
Opening Address

10:00–10:30 *Haruto Itagaki (Toho Univ.), Yasunori Kimura (Toho Univ.)
A convergence theorem to a solution to an equilibrium problem using CQ projection method

10:30–11:00 Shuta Sudo (Toho Univ.)
A modified Halpern type iterative scheme on a geodesic space

Break

11:15–11:45 Yasunori Kimura (Toho Univ.), *Tomoya Ogihara (Toho Univ.)
Convergence of a sequence generated by a new projection method in Hadamard spaces

11:45–12:15 Yasunori Kimura (Toho Univ.), *Tomoki Oguchi (Toho Univ.)
An approximating sequence and its limit by a projection method on a complete geodesic space

Lunch

13:45–14:15 Shindo Keisuke (National Institute of Technology, Hachinohe College)
Asymptotic behavior of the resolvent for a sequence of monotone operators on a complete geodesic space

14:15–14:45 Hiroko Manaka (Nihon Univ.)
Strong convergence theorems for a solution of split feasibility problem in Banach spaces

14:45–15:15 Yukio Takeuchi (Takahashi institute for nonlinear analysis)
On a characterization of uniformly convex Banach spaces

Break

15:30–16:00 Takanori Ibaraki (Yokohama National Univ.), Shunsuke Kajiba (Yokohama National Univ.), *Ryuji Nakano (Yokohama National Univ.)
A shrinking projection method with allowable range for zero point problems in a Hilbert space

16:00–16:30 Takanori Ibaraki(Yokohama National Univ.), *Shunsuke Kajiba(Yokohama National Univ.), Yukio Takeuchi(Takahashi Institute for Nonlinear Analysis)
A strong convergence theorem for common fixed points of commutative two nonlinear mappings

Aug. 29 (Tue)

10:00–10:30 Yasunori Kimura(Toho Univ.), *Miho Nakadai(Toho Univ.)
Approximation of a minimizer of a convex function on a geodesic space

10:30–11:00 Kazuya Sasaki (Toho Univ.)
Study on some special convex functions

Break

11:15–11:45 Yousuke Araya (Akita Prefectural Univ.)
Extension of vector space and set optimization problem

11:45–12:15 Wei-Shih Du (National Kaohsiung Normal Univ., Taiwan)
New fixed point theorems and simultaneous generalizations in fixed point theory

Lunch

13:45–14:15 *Tomoki Tokunaga (Akita Prefectural Univ.), Shin-ya Matsushita (Akita Prefectural Univ.), Xu Li (Akita Prefectural Univ.)
Primal-dual splitting algorithm for the minimum fuel control

14:15–14:45 Hiroaki Mohri (Waseda Univ.), *Jun-ichi Takeshita (AIST)
Convergence of Palais-Smale sequences and global optimization

14:45–15:15 Masamichi Kon (Hirosaki Univ.)
Scalarization method for some kinds of set or fuzzy set-valued optimization problems

Break

15:30–16:00 Tsuneshi Obata(Oita Univ.), *Shunsuke Shiraishi(Hirosima Institute of Technology)
Convergence of Newton's method for the characteristic equation of a fourth-order pairwise comparison matrix in the analytic hierarchy process

16:00–16:30 Hidefumi Kawasaki (Professor Emeritus Kyushu Univ.)
An application of Borsuk-Ulam theorem to optimization

Aug. 30 (Wed)

10:00–10:30 Shigeru Iemoto (Chuo Univ.)
Some results on approximate solutions of variational inequality problems for inverse strongly monotone operators

10:30–11:00 Takashi Honda (Iwate Univ.)
The convergence of the sequence of conditional expectations

Break

11:15–11:45 *Ryota Iwamoto (Niigata Univ.), Tamaki Tanaka (Niigata Univ.)
On relationships between asymptotic cones and several notions of semicontinuities for set-valued maps

11:45–12:15 *Longrio Platil (Niigata Univ.), Tamaki Tanaka (Niigata Univ.)
Multi-criteria comparison of intuitionistic fuzzy sets from the viewpoint of set optimization

Lunch

13:45–14:15 Yuto Ogata (Kanazawa-Gakuin Univ.)
Robustness of feasibility for multi-valued optimization via sublinear characterization

14:15–14:45 Toshikazu Watanabe (Nihon Univ.)
On α-ψ-contractive type mappings and their asymptotic versions

14:45–15:15 Wang Qi(Nagasaki Institute of Applied Science), Aiko Kurushima(Sophia Univ.), Masayuki Horiguchi (Kanagawa Univ.)
On an improvement of algorithms for interval estimated stochastic transition matrices

Break

15:30–16:00 Mitsuhiro Hoshino (Akita Prefectural Univ.)
On nearly absorbing state class in self-organizing maps with inner-product iterative learning

16:00–16:30 Seiichi Iwamoto (Professor Emeritus Kyushu Univ.) , *Yutaka Kimura (Akita Prefectural Univ.)
Fibonacci optimization and its related field — duality — (II)