THE HONG KONG POLYTECHNIC UNIVERSITY
香港理工大學

AIP
Center for
Advanced Intelligence Project

DEPARTMENT OF APPLIED MATHEMATICS
應用數學系

The PolyU AMA - RIKEN AIP Joint Workshop on Optimization and Machine Learning
2-3 May 2019

Objective

This workshop brings together researchers to share their recent findings in optimization and machine learning. The workshop is co-organized by Department of Applied Mathematics (AMA) in The Hong Kong Polytechnic University (PolyU) and RIKEN Center for Advanced Intelligence Project (AIP) in Tokyo.

Details

Date : 2-3 May 2019 (Thursday - Friday)
Venue : Room TU801, PolyU

Speakers

Xiaojun Chen	PolyU AMA
Jun-ya Gotoh	Chuo University
Tim Kelley	North Carolina State University
Tianxiang Liu	RIKEN AIP
Michael Metel	RIKEN AIP
Takayuki Okuno	RIKEN AIP
Ting Kei Pong	PolyU AMA
Jianming Shi	Tokyo University of Science
Defeng Sun	PolyU AMA
Akiko Takeda	The University of Tokyo / RIKEN AIP
Kim-Chuan Toh	National University of Singapore
Xiao Wang	PolyU UBDA
Xiaoqi Yang	PolyU AMA
Zaikun Zhang	PolyU AMA

All are welcome

For enquiry, please contact Miss Natalie Cheung at 2766 6938 or Natalie.cheung@polyu.edu.hk

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Program

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Venue: TU801

May 2, 2019

Time	Speakers	Titles
9:30 – 10:05	Akiko Takeda	Group Lasso for Household Energy Consumption Prediction and Toward Nonconvex Regularizer
10:05 – 10:40	Jun-ya Gotoh	Sparse Recovery with Continuous Exact k-sparse Penalties
10:40 – 11:15	Xiaojun Chen	Nonsmooth Convex Regression with Cardinality Penalty
11:15 – 11:35		Tea break
11:35 – 12:10	Defeng Sun	A Majorized Proximal Point Dual Newton Algorithm for Nonconvex Statistical Optimization Problems
12:10 – 12:45	Kim-Chuan Toh	An Asymptotically Superlinearly Convergent Semismooth Newton Augmented Lagrangian Method for Linear Programming
12:45 – 14:30		Lunch
14:30 – 15:05	Michael Metel	Stochastic Proximal Methods for Non-Smooth Non-Convex Constrained Sparse Optimization
15:05 – 15:40	Takayuki Okuno	Smoothing Newton Method for ℓ_q Hyperparameter Optimization
15:40 – 16:00		Tea Break
16:00 – 16:35	Tianxiang Liu	A Hybrid Penalty Method for a Class of Multiple Rank-constrained Optimization Problems
16:35 – 17:10	Ting Kei Pong	Gauge Optimization: Duality and Polar Envelope
17:10 – 17:45	Zaikun Zhang	Trust-region Method based on Inexact First-order Information
18:00 – 20:30		Dinner

May 3, 2019

Time	Speakers	Titles
9:30 – 10:05	Tim Kelley	Anderson Acceleration: Convergence Theory and Numerical Experience
10:05 – 10:40	Jianming Shi	LP-Newton Methods for Linear Programming and Beyond
10:40 – 11:00	Tea break	
11:00 – 11:35	Xiao Wang	A Linearly Convergent Stochastic Recursive Gradient Method for Convex Optimization
11:35 – 12:10	Xiaoqi Yang	Extended Newton Methods for Multiobjective Optimization: Majorizing Function Technique and Convergence Analysis
12:30 – 14:30	Lunch	