August 31, Friday

09:00-09:20 **Registration**

09:20-09:50 **Opening** (Chair: Hisao Ishibuchi, Southern University of Science and Technology)

   Xin Yao, Southern University of Science and Technology (SUSTech)

09:50-10:50 **Keynote Talk I** (Chair: Hisao Ishibuchi, Southern University of Science and Technology)

   Ke Tang, Southern University of Science and Technology (SUSTech)

   "Scalable Evolutionary Search in the Big Data Era - Challenges and Opportunities"

10:50-11:10 **Break**

11:10-12:10 **Keynote Talk II** (Chair: Ryoji Tanabe, Southern University of Science and Technology)

   Ran Cheng, Southern University of Science and Technology (SUSTech)

   "Computational Intelligence for Large-scale Optimization"

12:10-14:00 **Lunch**

14:00-15:00 **Keynote Talk III** (Chair: Hiroyuki Sato, The University of Electro-Communications)

   Qingfu Zhang, City University of Hong Kong

   "Use of Traditional Optimization Methods on Multiobjective Evolutionary Computation"

15:00-15:20 **Break**

15:20-17:20 **Poster Presentations 1** (Chair: Yoshikawa Tomohiro, Nagoya University)

(s) and * respectively indicate a student paper and the presenter

1-1 (s)	**Real-Time Ranking of Contribution of People to Human-Based Evolutionary Search**
	*Yunhao Zhu, Soshi Kamitaki, and Kei Ohnishi (Kyushu Institute of Technology)
1-2	**Enhancing Multi-Objective Bayesian Optimization with the Probability to Belong to the Pareto Set**
	*Pramudita Satria Palar and Koji Shimoyama (Tohoku University)
1-3	**A Double-Niched Method for Multi-Modal Multi-Objective Evolutionary Optimization**
	Yiping Liu (Osaka Prefecture University), Hisao Ishibuchi (Southern University of Science and Technology), *Yusuke Nojima, Naoki Masuyama (Osaka Prefecture University), and Ke Shang (Southern University of Science and Technology)
1-4 (s)	**Multifactorial Optimization by Task Selective Artificial Bee Colony**
	*Gen Yokoya and Toshiharu Hatanaka (Osaka University)
1-5 (s)	**Approximation of the Pareto Optimal Solutions by a Neural Network Based on Solutions Obtained by Evolutionary Algorithms**
	*Yuki Tanigaki, Naoki Masuyama, Yusuke Nojima (Osaka Prefecture University), and Hisao Ishibuchi (Southern University of Science and Technology)
1-6 (s)	**A DE Based Parameter Optimization in Simple Reservoir Computing Systems**
	*Naoki Sakamoto and Toshimichi Saito (Hosei University)
1-7 (s)	**A Preliminary Study on Weight Vector Distribution Control Based on Intermediate Objective Value**
	*Tomoaki Takagi, Keiki Takadama, and Hiroyuki Sato (The University of Electro-Communications)
1-8	**Adapting Normal Distribution of Evolution Strategy via Approximated Quadratic Landscape**
	*Kazuyuki Masutomi (Central Research Institute of Electric Power Industry)
1-9 (s)	**Optimal Feature Selection for Intrusion Detection Systems Employing Multi-Objective Genetic Algorithm**
	*Chang Geng and Masaharu Munetomo (Hokkaido University)
1-10 (s)	**Evolutionary Multitasking for Single Objective Optimization with Hybrid Swarm**
	*Heng Xiao and Toshiharu Hatanaka (Osaka University)

18:00-20:00 **Dinner**

September 1, Saturday

9:00-10:20 **Invited Talk I** (Chair: Yusuke Nojima, Osaka Prefecture University)

    Hiroyuki Sato, The University of Electro-Communications

    "Evolutionary Many-objective Optimization: Difficulties and Approaches"

10:20-10:40 **Break**

10:40-12:00 **Invited Talk II** (Chair: Masaya Nakata, Yokohama National University)

    Shinichi Shirakawa, Yokohama National University

    "Designing Deep Neural Network Structures Based on Evolutionary Computation"

12:00-13:00 **Lunch**

13:00-15:00 **Poster Presentations 2** (Chair: Shinya Watanabe, Muroran Institute of Technology)

(s) and * respectively indicate a student paper and the presenter

2-1 (s)	**Introducing a Penalty Term to Control Structure Complexity in Dynamic Optimization of Neural Network Structures** *Shota Saito and Shinichi Shirakawa (Yokohama National University)
2-2 (s)	**Vegetation Evolution for Numerical Optimization** *Jun Yu and Hideyuki Takagi (Kyushu University)
2-3	**An Improved One-By-One Selection Based Many-Objective Evolutionary Algorithm** Yiping Liu (Osaka Prefecture University), Hisao Ishibuchi (Southern University of Science and Technology), *Yusuke Nojima, Naoki Masuyama (Osaka Prefecture University), and Ke Shang (Southern University of Science and Technology)
2-4 (s)	**Dynamic Selection of Image Processing Filters for Convolutional Neural Networks** *Yusei Kawai and Shinichi Shirakawa (Yokohama National University)
2-5 (s)	**Preliminary Study of Multi-Objective Air Traffic Optimization by Using Step Back Cellular Automaton** *Katsuhiro Sekine, Tomoaki Tatsukawa, Shinsuke Nagaoka, and Kozo Fujii (Tokyo University of Science)
2-6	**A Comparative Study of Evaluation Methods for Infeasible Solutions on Constrained MOEA/D with Directed Mating and Archives** *Minami Miyakawa (Hosei University, JSPS Research Fellow), Hiroyuki Sato (The University of Electro-Communications), and Yuji Sato (Hosei University)
2-7 (s)	**Comparative Study on Evolutionary Algorithms for Multi-Objective Tour Guide Assignment Problem** *Lina Setiyani and Takeo Okazaki (University of the Ryukyus)
2-8 (s)	**Adaptation of Weight Vectors and the Neighborhood Size in MOEA/D for Inverted Triangular Pareto Fronts** Ryo Imada, *Yuki Tanigaki, Naoki Masuyama, Yusuke Nojima (Osaka Prefecture University), and Hisao Ishibuchi (Southern University of Science and Technology)
2-9	**EMO Approach for The L1-Normalization of Neural Networks** Misaki Kitahashi and *Hisashi Handa (Kindai University)

15:00-15:20 **Break**

15:20-17:20 **Poster Presentations 3** (Chair: Minami Miyakawa, Hosei University)

3-1 (s)	**Data-Driven Approach for Functional Brain Image Analysis -Solution Exploration of Important Functional Connectivity Using The Pareto Solution Set-**
	*Akihiro Fujii, Satoru Hiwa, and Tomoyuki Hiroyasu (Doshisha University)
3-2 (s)	**The Influence of Parent Population Size on the Performance of NSGA-II**
	*Tatsumasa Ishikawa (Tokyo University of Agriculture and Technology) and Akira Oyama (Japan Aerospace Exploration Agency)
3-3 (s)	**MOEA/D for Multi-Task Multi-Objective Optimization**
	*Ryuichi Hashimoto, Naoki Masuyama, Yusuke Nojima, and Hisao Ishibuchi (Southern University of Science and Technology)
3-4	**A Preliminary Study on Collaboration Model of Sparsely-Synchronized Heterogeneous Coevolution**
	Yuki Nakashima, Jun-ichi Matsuoka, Asuka Hisatomi, and *Satoshi Ono (Kagoshima University)
3-5 (s)	**Analysis of Information Geometric Optimization with Isotropic Gaussian Distribution: Toward Finite-Sample Analysis on Convex Quadratic Functions**
	*Kento Uchida (Yokohama National University), Youhei Akimoto (University of Tsukuba), and Shinichi Shirakawa (Yokohama National University)
3-6	**A Decomposition-Based Multi-Modal Multi-Objective Optimizer**
	*Ryoji Tanabe and Hisao Ishibuchi (Southern University of Science and Technology)
3-7 (s)	**An Infeasible Solution Repair Switching Addition and Deletion Operations for Evolutionary Multi-Objective Set Packing Optimization**
	*Mariko Tanaka and Hiroyuki Sato (The University of Electro-Communications)
3-8 (s)	**Dynamic Feature Construction for Neural Networks Using Probabilistic Model-Based Genetic Programming**
	*Hirokazu Kobayashi, Shota Saito, and Shinichi Shirakawa (Yokohama National University)
3-9	**Evolutionary Fuzzy Classifier Design Using Outputs by a Deep Convolutional Neural Network**
	*Yusuke Nojima (Osaka Prefecture University), Sota Sakai, Naoki Masuyama, and Hisao Ishibuchi (Southern University of Science and Technology)
3-10 (s)	**Application of PSO to Dynamic Maximum Power Point Tracking**
	*Tomoyuki Togawa, Shin Yasukawa, and Toshimichi Saito (Hosei University)

17:20-17:50 **Closing**