The 4th International Conference on Data-driven Optimization of Complex Systems
May 27-29, 2022, Chengdu, Sichuan, China

Honorary General Chairs
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Tianyou Chai, Northeastern University

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Jiuping Xu, Sichuan University
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Handing Wang, Xidian University
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Wenwu Yu, Southeastern University
Deming Yuan, Nanjing University of Science and Technology
Ye Yuan, Huazhong University of Science and Technology
Xingyi Zhang, Anhui University
Chunhui Zhao, Zhejiang University

Invited Sections Chairs
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Weinan Gao, Florida Institute of Technology
Hua Geng, Tsinghua University
Tieshan Li, University of Electronic Science and Technology of China
Jing Liang, Zhengzhou University
Jing Liu, Xidian University
Qiang Liu, Northeastern University,
Yi Liu, Zhejiang University of Technology
Ziyang Meng, Tsinghua University
Jiahu Qin, University of Science and Technology of China
Guanghui Wen, Southeast University
Zhengguang Wu, Zhejiang University
Weiguo Xia, Dalian University of Technology
Jinhui Zhang, Beijing University of Technology
Ping Zhou, Northeastern University
Shanying Zhu, Shanghai Jiao Tong University

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Yew-Soon Ong, Nanyang Technological University
Yuhui Shi, Southern University of Science and Technology
Mengjie Zhang, Victoria University of Wellington

Publications Chairs
Ran Cheng, Southern University of Science and Technology
Chaoli Sun, Taiyuan University of Technology

Registration Chairs
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Jinxi Zhang, Northeastern University

Local Arrangements Chairs
Rui Qiu, Sichuan University
Pengyu Yan and Wei Yan, University of Electronic Science and Technology of China

Call for Papers
Sponsor: Sichuan University
Co-sponsors: State Key Laboratory of Synthetical Automation for Process Industries, Chinese Association of Automation, and University of Electronic Science and Technology of China
Technical co-sponsor: IEEE Computational Intelligence Society

The 4th International Conference on Data-driven Optimization of Complex Systems (DOCS'2022) will be held on May 27-29, 2022 in Chengdu, China. DOCS'2022 aims to provide a high-level international forum for innovative academics and industrial experts in the related fields of data-driven optimization and its application to complex systems. The goal of the conference is to promote research and in data-driven optimization, learning and control, and their applications to complex systems, and establish a forum for academia and industrial practitioners around the world to share ideas and present their recent research advances. The conference will be featured by tutorials, workshops, plenary speeches given by world-leading researchers, regular sessions with a broad coverage, and special sessions focusing on popular and emerging topics. We warmly invite you to participate in DOCS'2022 and look forward to seeing you in Chengdu!

Call for Papers and Special Sessions
Authors are warmly invited to contribute high-quality papers to DOCS'2022. In addition, interested researchers are encouraged to propose special sessions within the technical scopes of the conference. Special sessions aim to bring together researchers to present research findings on focused topics. For details, please visit the conference website: https://conference....

Topics
Technical topics of the conference include, but are not limited to, the following areas:
Data-driven machine learning
Dynamic big data machine learning methods and techniques, deep learning, neural architecture search, reinforcement learning, statistical relational learning, transfer learning, self-supervised learning, distributed and federated machine learning, trustworthy machine learning
Data-driven optimization and decision making
Data-driven optimization algorithms, Bayesian optimization, neural combinatorial optimization, large-scale and multi-objective optimization, integration of machine learning and optimization, data-driven decision paradigm, intelligent scheduling, reinforcement learning for combinatorial optimization, distributed and federated optimization, industrial and manufacturing system analysis, and decision-making
Data-driven modeling and control
Learning and adaptive control, robust control, intelligent control, optimization-based and optimal control, model predictive control, fault detection and identification, hybrid intelligent systems, neural control, fuzzy logic control, networked control, industrial automation, intelligent transportation systems, environmental monitoring and control, intelligent manufacturing systems, green communication systems
Big data analysis and application
Big data storage and mining, data coordination, integration and processing, big data analytics and metrics, theory and methods of multi-source big data fusion, data base management systems, big data service, big data-oriented cloud computing technology, privacy preserving big data analysis, visual city data analysis, intelligent transportation data analysis, healthcare data analysis, bioinformatics

Paper Submission
Authors are invited to submit full-length papers (nominal paper length is 6-8 A4 pages) by the submission deadline through the online submission system. Special session organizers are also invited to enlist at least 6 papers with cohesive topics to form special sessions. The submission of a paper implies that the paper is original and has not been submitted under review or is not copyright-protected elsewhere and will be presented by an author if accepted. All submitted papers will be refereed by experts in the field based on the criteria of originality, significance, quality, and clarity. The authors of accepted papers will have an opportunity to revise their papers and take consideration of the referees' comments and suggestions. Accepted full-length papers will be included in IEEE Xplore Digital Library and will be indexed by EI. Selected high-quality papers will be invited to be submitted to journal special issues after a substantial extension.

Important Dates
Special session proposals deadline……………………………………………………………………… January 1, 2022
Paper submission deadline…………………………………………………………………..…………........ February 1, 2021
Notification of acceptance……………………………………………………………………..……………….. March 1, 2021
Camera-ready copy and author registration……………………………………………………………April 1, 2021