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Keynote Title: Decomposition Multiobjective Optimization and Pareto Multitask Learning

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Abstract:

Many real-world optimization problems are multiobjective by nature. Multiobjective evolutionary algorithms are a widely used algorithmic framework for solving multiobjective optimization problems. In this talk, I will briefly explain the basic ideas behind decomposition based multiobjective evolutionary algorithm (MOEA/D). Multitask learning can be naturally modelled as a multiobjective optimization problem. I will introduce a recent application of MOEA/D on multitask learning.

Biography

Qingfu Zhang is Chair Professor of Computational Intelligence at the Department of Computer Science, City University of Hong Kong. His main research interests include evolutionary computation, optimization, neural networks, data analysis, and their applications. Professor Zhang is an Associate Editor of the IEEE Transactions on Evolutionary Computation and the IEEE Transactions Cybernetics. MOEA/D, a multiobjective optimization algorithm developed by him and his students, is one of the two most used multiobjective optimization framework. He was awarded the 2010 IEEE Transactions on Evolutionary Computation Outstanding Paper Award. He has been in the list of SCI highly cited researchers for five consecutive years, from 2016 to 2020. He is an IEEE fellow.