Session 1: Optimization Methods
10:20 – 11:00, 14th, July

Global Piecewise Linear Optimization Algorithm for Data-driven Modeling
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In this talk, we first explain that several classical issues in data-driven modeling can be expressed as a problem of minimizing a concave piecewise linear function over a polyhedron, then introduce a new approach for finding a global solution of such problem. The approach to be reported can be regarded as an extension of the newly proposed algorithm, called hill-detouring, for the same problem. After briefly reviewing the basic steps of the hill-detouring algorithm, and analyzing its shortcoming, we present the major measures adopted in the new approach. These measures may effectively overcome the shortcoming of the current hill-detouring process; hence make the extended algorithm have better performance.