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EDITORIAL

Modeling and optimization: theory and applications (MOPTA) 2019–selected works

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This special issue features a selection of contributions that were presented at the Modeling and Optimization: Theory and Applications Conference (MOPTA) held at Lehigh University in Bethlehem, Pennsylvania, USA between August 14 and August 16, 2019. This is the second MOPTA special issue in Optimization and Engineering (for the first, see Bienstock and Zuluaga 2020). We thank the journal for its ongoing support of this conference series.

The annual MOPTA conferences bring together diverse groups of researchers and practitioners from a broad range of optimization areas, working on theoretical or applied aspects, or both. MOPTA 2019 included a variety of exciting new research developments from different optimization areas, with special focus streams on optimization in energy, in health, in machine learning and quantum computing optimization, and in engineering optimization. The MOPTA conferences provide a setting for lively interaction among the participants.

Topics included in the curated works for this Special Issue cover novel numerical optimization techniques (Richtárik et al. 2020; Kızılkale and Pınar 2020), heuristic algorithms for optimization (Koessler and Almomani 2020), combinatorial optimization with applications to social networks (Shim, S. et al.), applications of optimization to composite discrete ply-angle and thickness topology problems (He et al. 2020), resource allocation models applied to smart home energy consumption and scheduling (Mouassa et al. 2020) and applications of optimization methods to solutions of generalized Nash games (Migot and Cojocaru 2020) and social networks (Shim et al. 2020). The selected contributions in this Special Issue illustrate the broad diversity of ideas discussed at the meeting.

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