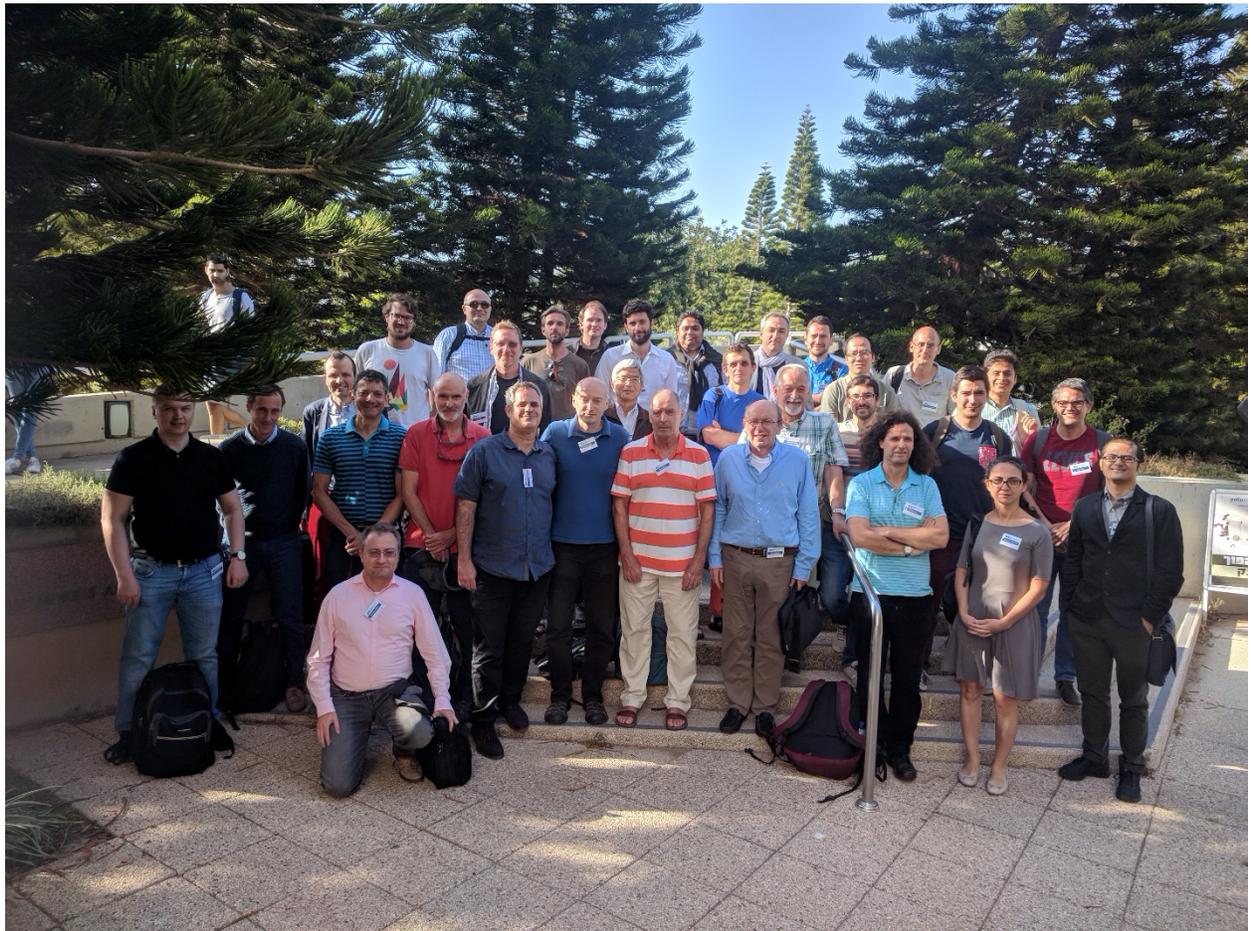


Preface: Optimization and Discrete Geometry

This issue contains a selection of research articles; most of them were presented at the conference "Optimization and Discrete Geometry: Theory and Practice" that took place from 24 to 27 April, 2018, and was hosted by the Department of Industrial Engineering, Tel Aviv University, Tel Aviv, Israel. The conference brought together a diverse group of researchers to stimulate cross-disciplinary interaction and collaborative work between combinatorial and continuous optimizers, geometers, theory people and practitioners.

The variety of topics covered illustrates the fruitful interaction between optimization and discrete geometry. The reader will find recent results in polyhedral optimization, separable optimization, quadratic optimization, neural networks training, parameterized complexity, volume computation, and geometric aspect of linear optimization.

We are grateful to the authors for their high-quality contributions and to the referees for their thorough reviews. We also thank Editor-in-Chief Nimrod Megiddo for his kind help throughout the process of assembling this issue. It is our pleasure to acknowledge the organizational support of the Department of Industrial Engineering staff, particularly Nira Ziziluk, as well as the nurturing environment provided by Tel Aviv University



From top left to bottom right:

Martin Koutecký, Levent Tunçel, Sebastian Pokutta, Steffen Borgwardt, Yuri Faenza, Santanu Dey, Leo Liberti, Kanstantsin Pashkovich, Nguyễn Kim, Noam Goldberg, Akshay Gupte
Axel Parmentier, Jon Lee, Shinji Mizuno, Dmitrii Pasechnik, Tamás Terlaky, Arnau Padrol, Gonzalo Muñoz, Julio Gómez
Sergei Chubanov, Frédéric Meunier, Daniel Bienstock, Shmuel Onn, Tal Raviv, Antoine Deza, Imre Bárány, Károly Bezdek, Nir Halman, Selin Ahipasaoglu, Amitabh Basu
Matthias Köppe

Antoine Deza,

Advanced Optimization Laboratory, McMaster University, Hamilton, Ontario, Canada

and

LIX, CNRS, Ecole Polytechnique, Institut Polytechnique de Paris, Palaiseau, France

deza@mcmaster.ca

Frédéric Meunier,

CERMICS, Université Paris-Est, Marne-la-Vallée, France

frederic.meunier@enpc.fr

Tal Raviv,

Department of Industrial Engineering, Tel Aviv University, Tel Aviv, Israel

talraviv@eng.tau.ac.il