Welcome to ISMP Bordeaux

François Vanderbeck (Conf. Chair), François Clautiaux (Co-Chair)

Manuel Tunon de Lara (President of the University of Bordeaux)

Karen Aardal (Chair of the Math Optimization Society - MOS)
Our Host
Donators
Sponsors
Organization 2018

Home-Made

Participative
1. Clusters and Streams → a larger Scientific Committee

Cluster 1: Discrete Optimization and Integer Programming
   IPtheory, IPpractice, MINLP, APPROX, COMB, CP

Cluster 2: Optimization under Uncertainty
   Stoch, Robust, Markov, Game

Cluster 3: Continuous Optimization
   NLP, Global, NonSmooth, SDP, Variat, RandomM, DerFree, Control

Cluster 4: Problem Specific Models, Algorithm Implementations, and Software
   Learning, Network, Logistics, Scheduling, Energy, Sciences, Algo
Evolutions ... in the continuity of ISMPs

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2. Keynote Speakers → a larger burden on the **Program Committee**
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3. A scientific program "Scheduler" → optimization & engineering Staff
Program Committee

Chair:
Michael Jünger, Prof., University of Cologne, Germany

For Cluster 1: Discrete Optimization and Integer Programming
Dan Bienstock, Prof., Columbia University, USA
Gerard Cornuéjols, Prof., Carnegie Mellon University, USA
Michel Goemans, Prof., Massachusetts Institute of Technology, USA

For Cluster 2: Optimization under Uncertainty
Laurent El Ghaoui, Prof., UC Berkeley, USA
Simge Küçükyavuz, Prof., University of Washington, USA
Daniel Kuhn, Prof., Ecole Polytechnique Fédérale de Lausanne, Switzerland

For Cluster 3: Continuous Optimization
Frank Curtis, Asoc. Prof., Lehigh University, USA
Claudia Sagastizabal, Researcher, IMPA (Mathematical sciences research institute), Brasil
Stephen Wright, Prof., University of Wisconsin-Madison, USA

For Cluster 4: Problem Specific Models, Algorithm Implementations, and Software
Michael Ferris, Prof., University of Wisconsin-Madison, USA
Martine Labbé, Prof., Université Libre de Bruxelles, Belgium
Stefan Wild, Researcher, Argonne, USA

Representing the Organization Committee:
François Clautiaux, Prof., U. Bordeaux & Inria team Realopt
François Vanderbeck, Prof., U. Bordeaux & Inria team Realopt (Vice Chair)
1. Cluster on Discrete Optimization and Integer Programming

(a) IPtheory: Integer Programming Theory (Polyhedral Study, Lattices, Extented Formulations...):
   Michele Conforti, Fritz Eisenbrand, Volkert Kaibel, Ridha Mahjoub

(b) IPpractice: Integer Programming Algorithms (Branch-and-cut, Reformulations and Decomposition, ...)
   Sanjeeb Dash, Adam Letchford, Ivana Ljubić, Marc Pfetsch

(c) MINLP: Mixed Integer Non-linear Programming
   Jeff Linderoth, Andrea Lodi, Jean-Philippe Richard, Frédéric Roppon

(d) APPROX: Complexity, Approximation and Online Algorithms
   Lionel Eyraud-Dubois, David P. Williamson, Rico Zenklusen

(e) COMB: Combinatorial Optimization and Graph Theory
   Laura Santu, Gianpaolo Oriolo, Arnaud Pécher, Nicolas Trotignon

(f) CP: Constraint Programming
   Louis-Martin Rousseau, Ruslan Sadykov, Pascal Van Hentenryck

2. Cluster on Optimization under Uncertainty

(a) Stoch: Stochastic Optimization
   Boris Detienne, James Luédike, Alexander Shapiro

(b) Robust: Robust Optimization
   Dimitris Bertsimas, Christoph Buchheim, Michael Poss

(c) Markov: Dynamic Programming, Markov Decision Processes, and Simulation
   François Dufour, Stéphane Gaubert, Husein Topologlu

(d) Game: Game theory, Bi-level and Multi-Objective Optimization
   Luce Brotcorne, Roberto Cominetti, Kathrin Klamroth

3. Cluster on Continuous Optimization

(a) NLP: Linear and Nonlinear Optimization, Sparse Optimization and applications
   Immanuel Bonne, Jean-Charles Gilbert, Jérôme Malick

(b) Global: Global Optimization
   Mirjam Dür, Jean-Baptiste Hiriart-Urruty, Yaroslav Sergeyev

(c) NonSmooth: Nonsmooth Optimization
   Jean-François Aujol, Amir Beck, Antonio Frangioni, Yuri Nesterov

(d) SDP: Conic Programming, Quadratic Programming and Semi-Definite Programming
   Souheir Elouami, Franz Rendl, Angelika Wiegele

(e) Variat: Variational Analysis, Variational Inequalities and Complementarity.
   Samir Adly, Xiaojun Chen, Boris Mordukhovich

(f) RandomM: Random Methods for Continuous Optimization (Stochastic Gradient, ...)
   Guanghui (George) Lan, Artur Pessôa, Lin Xiao

(g) DeFree: Derivative-free and Simulation-based Optimization
   Charles Audet, Serge Gratton, Katya Scheinberg

(h) Control: Optimal Control, PDE Constrained Optimization, and Multi-level Methods
   Jean-Bernard Lasserre, Stefan Ulbrich, Emmanuel Trelat

4. Cluster on Problem Specific Models, Algorithm

(a) Learning: Machine Learning, Big Data, Cloud Computing, and Huge-Scale Optimization
   Alexandre d’Aspremont, Olivier Beaumont, Peter Richtarik, Suvrit Sra

(b) Network: Network Flow, Network Design, and Applications in Telecom and Traffic Management
   Bernard Fortz, Bernard Gendron, Luis Gouveia

(c) Logistics: Packing, Logistics, Location, and Routing
   Jean-François Cordeau, Frédéric Semet, Eduardo Uchoa, Daniele Vigo

(d) Scheduling: Scheduling, Planning and Applications in Manufacturing Systems and Healthcare
   Tom McCormick, Gautier Stauffer, François Soumis, Matthieu Van Vyve

(e) Energy: Optimization for Environmental, Energy, and Engineering Systems
   Miguel Anjos, Claudia d’Ambrosio, Christine Shoemaker, Golbon Zakeri

(f) Sciences: Optimization in Sciences, Computational Biology, Societal Issues, Finance, and Economics
   Sonia Cafieri, Leo Liberti, Britta Peis

(g) Algo: Math Programming Algorithm Implementations, Parallel Computing, and Software
   Tobias Achterberg, Giacomo Nannicini, Pierre Pesneau, Andrea Tramontani
IT-Optim Staff

Philippe Depouilly
Laurent Facq
Pierre Pesneau

→ open source code
Student Brigade
Your Contributions

1900 attendees
50 countries
1550 talks
480 sessions

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To Chairpersons: please keep on schedule & leave empty slot when talk cancelled

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Location
Welcome to ISMP Bordeaux

François Vanderbeck (Conf. Chair)
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Karen Aardal (Chair of the Math Optimization Society - MOS)
Price Award Ceremony
Michael Jünger (Program Committee Chair)
Paul Tseng Memorial Lectureship

For outstanding contributions in continuous optimization.

Presented by

Ya-xiang Yuan, jury member
Paul Tseng Memorial Lectureship

For outstanding contributions in continuous optimization.

Presented by

Ya-xiang Yuan, jury member

Prize awarded to

Zhi-Quan Luo
A.W. Tucker Prize

For an outstanding thesis in mathematical programming.

Presented by

Simge Küçükyavuz, jury chair
A.W. Tucker Prize

For an outstanding thesis in mathematical programming.

Presented by

Simge Küçükyavuz, jury chair

Finalists

Adrien Taylor and Damek Davis

Prize awarded to

Yin Tat Lee
Lagrange Prize for Continuous Optim.

For outstanding work in continuous optimization.

Presented by

Katya Scheinberg, jury chair
Lagrange Prize for Continuous Optim.

For outstanding work in continuous optimization.

Presented by

Katya Scheinberg, jury chair

Prize awarded to

Francis Bach, Nicolas Le Roux, & Mark Schmidt
Beale - Orchard-Hays Prize

For outstanding work in computational mathematical programming

Presented by

Michael Grant, jury chair
Beale - Orchard-Hays Prize

For outstanding work in computational mathematical programming

Presented by

Michael Grant, jury chair

Prize awarded to

Defeng Sun, Kim-Chuan Toh, & Liuqin Yang
Delbert Ray Fulkerson Prize

For outstanding papers in discrete mathematics.

Presented by

Maria Chudnovsky & Martin Grötschel
Delbert Ray Fulkerson Prize

For outstanding papers in discrete mathematics.

Presented by

Maria Chudnovsky & Martin Grötschel

Prize awarded to

Thomas Rothvoss
Delbert Ray Fulkerson Prize

For outstanding papers in discrete mathematics.

Presented by

Maria Chudnovsky & Martin Grötschel

Prize awarded to

Thomas Rothvoss
Peter Allen, Julia Böttcher, Simon Griffiths, Yoshiharu Kohayakawa, Robert Morris
George B. Dantzig Prize

For original research having a major impact on mathematical optimization.

Presented by

Gérard Cornuéjols, jury chair
George B. Dantzig Prize

For original research having a major impact on mathematical optimization.

Presented by

Gérard Cornuéjols, jury chair

Prize awarded to

Alexander Shapiro & Andrzej Ruszczyński
University of Bordeaux Chorale

directed by Laurence WALLIMANN