

# Semester Program: Discrete Optimization: Mathematics, Algorithms, and Computation

January 30 - May 5, 2023

## ORGANIZING COMMITTEE

Jesus DeLeora, University of California, Davis

Antoine Deza, McMaster University

Marcia Fampa, Federal University of Rio de Janeiro

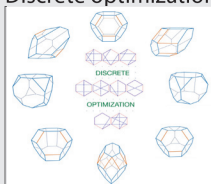
Voker Kaibel, Otto-von-Guericke University Magdeburg

Jon Lee, University of Michigan

Laura Sanita, TU Eindhoven

## PROGRAM DESCRIPTION

Discrete optimization is a vibrant area of computational mathematics devoted to efficiently finding optimal solutions among a finite or countable set of possible feasible solutions.



Discrete optimization problems naturally arise in many kinds

of applications and connect a variety of areas in mathematics, computer science, and data analytics including approximation algorithms, convex and tropical geometry, number theory, real algebraic geometry, parameterized complexity theory, quantum computing, machine learning, and mathematical logic.

This program will bring together a diverse group of researchers to explore links between mathematical tools and unsolved fundamental questions. We plan to explore computational techniques from discrete optimization and will continue the tradition of designing new algorithms for applied and industrial problems.

Affiliated Workshops:

- Linear and Non-Linear Mixed Integer Optimization: Algorithms and Industrial Applications (Feb 27-, March 3, 2023)
- Combinatorics and Optimization (March 27-31, 2023)
- Trends in Computational Discrete Optimization (April 24-28, 2023)



# ICERM

Institute for Computational and Experimental Research in Mathematics

Proposals being accepted:

Semester Program

Topical/Hot Topics Workshops

Small Group Research Program

Summer Undergrad Program

Applications being accepted:

Semester Program or Workshop

Postdoctoral Fellowship

Sponsorships being accepted:

Academic or Corporate

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