



# SET OPTIMIZATION for APPLICATIONS

International Summer School & Colloquium  
at Free University of Bozen (UniBZ), Campus Bruneck

## Organized by

Faculty of Economics and Management at Free University of Bozen-Bolzano  
Center for Set Optimization and Applied Sciences.

**Dates.** June 21-July 1, 2017

## WHAT IS GOING TO HAPPEN?

Each day, there will be a lecture in the morning and tutorials as well as time for project work in the afternoon. The tutorials are for discussing the material of the lectures and exercises, the project time is for your own research. Both will be done in small groups including the tutors. There will be a joint project and feedback discussion to conclude the day. The results of the projects will be documented and, ideally, presented at the colloquium. The participants will receive Lecture Notes and a document confirming the participation. Evening activities can be scheduled spontaneously if there is supply & demand: e.g. tango, math and juggling, economy of star wars, your ideas.

## SCHEDULE

### Wednesday, June 21st, 2017.

- Arrival
- 6-9pm Registration open at university
- 8:00pm: Welcome Reception, Room -1.13 at the university

### Thursday, June 22nd, 2017.

- 8-10am Registration open at university
- 8:45am Opening ceremony
- 9:00-10:30am Lecture “Set Optimization and its Applications” (A. Hamel)
- 10:30-10:45am Coffee break
- 10:45am-12:15pm Lecture “Set Optimization and its Applications” (A. Hamel)
- 12:15pm-1:15pm Tutor’s session: Preparing the afternoon

- 1:15-2:15pm Lunch break
- 2:15-3:45pm Tutorials (G. Kovacova, C. Schrage, S. Wang, B. Weißing)
- 3:45-4:15pm Coffee break
- 4:15-5:45pm Project work in groups (G. Kovacova, C. Schrage, S. Wang, B. Weißing)
- 6-7pm Joint project discussion, conclusion of the day.

**Friday, June 23rd, 2017.**

- 9:00-10:30am Lecture “Set Optimization and its Applications” (A. Hamel)
- 10:30-10:45am Coffee break
- 10:45am-12:15pm Lecture “Set Optimization and its Applications” (A. Hamel)
- 12:15pm-1:15pm Tutor’s session: Preparing the afternoon
- 1:15-2:15pm Lunch break
- 2:15-3:45pm Tutorials (G. Kovacova, C. Schrage, S. Wang, B. Weißing)
- 3:45-4:15pm Coffee break
- 4:15-5:45pm Project work in groups (G. Kovacova, C. Schrage, S. Wang, B. Weißing)
- 6-7pm Joint project discussion, conclusion of the day.

**Saturday, June 24th, 2017.**

- 9:00-10:30am Lecture “Set Optimization and its Applications” (A. Hamel)
- 10:30-10:45am Coffee break
- 10:45am-12:15pm Lecture “Set Optimization and its Applications” (A. Hamel)
- 12:15pm-1:15pm Tutor’s session: Preparing the afternoon
- 1:15-2:15pm Lunch break
- 2:15-3:45pm Tutorials (G. Kovacova, C. Schrage, S. Wang, B. Weißing)
- 3:45-4:15pm Coffee break
- 4:15-5:45pm Project work in groups (G. Kovacova, C. Schrage, S. Wang, B. Weißing)
- 6-7pm Joint project discussion, conclusion of the day.

**Sunday, June 25th, 2017.**

- Day off: Hiking tour (an “easy” walking tour and an “advanced hike” are offered—bring solid shoes, not sneakers, for both—, weather depending we may swap the plans for Saturday and Sunday)

**Monday, June 26th, 2017.**

- 9:00-10:30am Lecture “Computational Aspects of Set Optimization” (A. Löhne)
- 10:30-10:45am Coffee break
- 10:45am-12:15pm Lecture “Computational Aspects of Set Optimization” (A. Löhne)
- 12:15pm-1:15pm Tutor’s session: Preparing the afternoon
- 1:15-2:15pm Lunch break
- 2:15-3:45pm Tutorials (G. Kovacova, C. Schrage, S. Wang, B. Weißing)
- 3:45-4:15pm Coffee break
- 4:15-5:45pm Project work in groups (G. Kovacova, C. Schrage, S. Wang, B. Weißing)
- 6-7pm Joint project discussion, conclusion of the day.

**Tuesday, June 27th, 2017.**

- 9:00-10:30am Lecture “Computational Aspects of Set Optimization” (A. Löhne)
- 10:30-10:45am Coffee break
- 10:45am-12:15pm Lecture “Computational Aspects of Set Optimization” (A. Löhne)
- 12:15pm-1:15pm Tutor’s session: Preparing the afternoon
- 1:15-2:15pm Lunch break
- 2:15-3:45pm Tutorials (G. Kovacova, C. Schrage, S. Wang, B. Weißing)
- 3:45-4:15pm Coffee break
- 4:15-5:45pm Project work in groups (G. Kovacova, C. Schrage, S. Wang, B. Weißing)
- 6-7pm Joint project discussion, conclusion of the day.

**Wednesday, June 28th, 2017.**

- 9:00-10:30am Lecture “Computational Aspects of Set Optimization” (A. Löhne)
- 10:30-10:45am Coffee break
- 10:45am-12:15pm Lecture “Computational Aspects of Set Optimization” (A. Löhne)

- 12:15pm-1:15pm Tutor's session: Preparing the afternoon
- 1:15-2:15pm Lunch break
- 2:15-3:45pm Tutorials (G. Kovacova, C. Schrage, S. Wang, B. Weißing)
- 3:45-4:15pm Coffee break
- 4:15-5:45pm Project work, preparation of presentations (G. Kovacova, C. Schrage, S. Wang, B. Weißing)
- 6-7pm Joint project discussion, conclusion of the day.

**Thursday, June 29th, 2017.**

- 9am-12 Lecture
- 9:00-10:30am Lecture "Set Optimization in perspective: challenges and open problems" (A. Hamel)
- 10:30-10:45am Coffee break
- 10:45am-12:15pm Lecture "Set Optimization in perspective: challenges and open problems" (A. Hamel)
- 12:15pm-1:15pm Tutor's session: Preparing the afternoon
- 1:15-2:15pm Lunch break
- 2:15-3:45pm Tutorials (G. Kovacova, C. Schrage, S. Wang, B. Weißing)
- 3:45-4:15pm Coffee break
- 4:15-5:45pm Project work, preparation of presentations (G. Kovacova, C. Schrage, S. Wang, B. Weißing)
- 6-7pm Joint project discussion, conclusion of the day.

**Colloquium: Set Optimization and Abstract Convexity with Applications in Statistics, Game Theory, Economics, Finance**

**Friday, June 30th, 2017.**

- 8-11am Registration for colloquium open at university
- 9am: Opening ceremony
- 9:15-10am Keynote talk Marc Hallin, Université Libre de Bruxelles, Belgium

- 10:15-11am Keynote talk Matthias Ehrgott, Lancaster University, U.K.
- 11:15-6pm Colloquium program (to be scheduled according to the outcome of the research projects)
- 7:30 pm: Social dinner

**Saturday, July 1st, 2017.**

- 9:15-10am Keynote talk Giovanni Crespi, Insubria University, Italy
- 10:15-11am Keynote talk Zachary Feinstein, Washington University in St. Louis, USA
- 11:15-1pm Colloquium program (to be scheduled according to the outcome of the research projects)
- 1pm Closing ceremony, departure