## hausdorff center for mathematics



## May 15 - 19, 2017



## Nonsmooth Optimization and its Applications

**Organizers:** Seyedehsomayeh Hosseini, Boris Mordukhovich, André Uschmajew **Location:** Lipschitz Hall, Endenicher Allee 60

As many problems in computer vision, robotics, signal processing and geometric mechanics are expressed as nonsmooth optimization problems, the huge impact of efficient methods to solve these problems is undeniable. Even solving difficult smooth problems sometimes leads to the use of nonsmooth optimization methods to make the problem either smaller in dimension or simpler in structure. It also may happen that a problem is analytically smooth, but numerically nonsmooth. Therefore, it is of eminent interest to develop useful computational and theoretical tools in these situations as well.

This workshop on nonsmooth optimization techniques and their applications will bring together leading experts from different research groups from all over the world to present the latest theoretical and practical achievements in this growing field, fostering collaboration and discussing future developments. Topics include, but are not limited to nonsmooth and variational analysis, optimization methods and their convergence analysis, applications in image processing, machine learning, etc.

## Invited speakers: Pierre-Antoine Absil

Dmitriy Drusvyatskiy

Marko Mäkelä

Mikhail Solodov

Miroslav Bacak Adil Baghirov Radu Bot James Burke Coralia Cartis Aris Daniilidis Helmut Gfrerer Rene Henrion Michael Hintermüller Napsu Karmitsa Yuri Ledyaev Russell Luke

Boris S. Mordukhovich Dominikus Noll Diethard Pallaschke Panagote Pardalos Claudia Sagastizábal Hermann Schichl

Sona Taheri Michel Théra Michael Ulbrich Stefan Ulbrich Shawn Wang



Limited funding may be available to help with local expenses. In case of questions regarding this workshop, please contact **noa2017@hcm.uni-bonn.de**.

www.hcm.uni-bonn.de/nonsmooth-optimization-2017/