



universität  
wien

Fakultät für Mathematik

## Mathematisches Kolloquium

### EINLADUNG

**Michael Hintermueller**  
(Humboldt Universität, Berlin)

***"Bilevel Optimization and Applications in Imaging"***

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### **Abstract:**

*Recently, bilevel optimization has become a focus topic in mathematical image processing. It is of particular relevance in applications involving parameter learning and related fields. This talk addresses opportunities as well as challenges connected to bilevel approaches in image restoration or blind deconvolution. While a major advantage is a monolithic optimization framework favoring leader-follower principles, some of the main challenges are related to non-smoothness, non-convexity, lack of constraint qualification as well as the design of efficient solution algorithms. Particular applications highlighted in this talk comprise distributed regularization parameter choice rules as well as topics in multiframe blind deconvolution.*

**Zeit: Mittwoch, 18. Jänner 2017**  
**15.45 Uhr Kaffeejause,**  
**16.15 Uhr Vortrag,**  
**vinum cum pane im Anschluss**

**Ort: Fakultät für Mathematik,**  
**Oskar-Morgenstern-Platz 1,**  
**Sky Lounge**

Radu Bot  
Christian Krattenthaler