Universität Karlsruhe (TH)
**Fakultät für Wirtschaftswissenschaften**

KIT
Karlsruhe Institute of Technology

# V**o**r**r**träge zum Operations Research

## Kolloquium des Instituts für Operations Research

*Zeit:*   Donnerstag, 23. Juli 2009, 17:30 Uhr

*Ort:*   Raum 111, Gebäude 20.13

*Es spricht:*   Prof. Boris Mordukhovich, Department of Mathematics, Wayne State University

*Zum Thema:*   **New trends and applications of variational analysis**

*Abstract:*   Variational analysis has been well recognized as a rapidly growing and fruitful area in mathematics motivated mainly by the study of constrained optimization and equilibrium problems, while also applying perturbation ideas and variational principles to a broad class of problems and situations that may be not of a variational nature. One of the most characteristic features of modern variational analysis is the intrinsic presence of nonsmoothness, which naturally enters not only through the initial data of the problems under consideration but largely via variational principles and perturbation techniques applied to a variety of problems with even smooth data. Nonlinear dynamics and variational systems in applied sciences also give rise to nonsmooth structures and motivate the development of new forms of analysis that rely on generalized differentiation.

In this talk we discuss some new trends and developments in variational analysis and its applications, emphasizing those to optimization and equilibrium problems, robust stability and error bounds, and optimal control. It is partly based on the authors recent 2-volume book Variational Analysis and Generalized Differentiation, I: Basic Theory, II: Applications, Springer Grundlehren der mathematischen Wissenschaften (Fundamental Principles of Mathematical Sciences) and contains also brand new results particularly related to semi-infinite programming.

**Die Vorträge zum Operations Research wenden sich an alle Interessierten!**

Ab 17:00 Uhr ist am Institut für Operations Research (Gebäude 20.13, Raum 104)
Gelegenheit zu einem Gespräch mit dem Referenten bei einer Tasse Kaffee gegeben.

Bei Rückfragen wenden Sie sich bitte an:

Prof. Dr. Oliver Stein, Institut für Operations Research.