

VORträge zum Operations Research

Kolloquium des Instituts für Operations Research

Zeit: Donnerstag, 11. Februar 2016, 17:30 Uhr

Ort: Raum 111, Gebäude 20.13

Es spricht: Prof. Dr. Russell Luke, Universität Göttingen

Zum Thema: **Error bounds and quantifiable convergence of proximal methods for non-smooth/(non)convex optimization**

Abstract: For iterative methods in nonconvex optimization, a central question is when to stop. And when the decision has been made to stop, what is the relation, if any, between the point that the algorithm delivers and the desired solution(s) to the optimization problem? Quantification of the convergence of algorithms is the key to providing error bounds for stopping criteria, and at the heart of quantifiable convergence rates lies theory of regularity, not only of the underlying functions and operators, but of the critical points of the optimization model. We survey progress over the last several years on sufficient conditions for local linear convergence of fundamental algorithms applied to nonconvex problems, and discuss challenges and prospects for further progress. The theory is local by nature and contains the convex case as an example where the local neighborhood extends to the whole space. We demonstrate the use of the tools we have developed on applications to image processing and matrix completion.

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.