

VORträge zum Operations Research

Kolloquium des Instituts für Operations Research

Zeit: Donnerstag, 1. Dezember 2022, 17:30 Uhr

Ort: Raum 320, Gebäude 09.21

Es spricht: Prof. Dr. Gabriele Eichfelder, TU Ilmenau

Zum Thema: **Ingredients for algorithms in multiobjective optimization**

Abstract: In multiobjective optimization one considers optimization problems with several competing objective functions. Such problems arise in a large variety of applications. Next to multiple objective functions, these problems often possess additional difficulties as discrete-continuous variables, bilevel structures, or uncertainties. In this talk we give a brief introduction to multiobjective optimization. We present the most widespread solution approach which is known under the name scalarization. There, one formulates parameter-dependent single-objective replacement problems and solves those iteratively for a set of parameters. We discuss the limits of such approaches in terms of quality guarantees and for specific classes of optimization problems as those with additional difficulties as mentioned above. Moreover, we give some of the basic ideas of direct methods which avoid to scalarize first and, thereby, try to overcome some of these issues

Die Vorträge zum Operations Research wenden sich an alle Interessierten!

Bei Rückfragen wenden Sie sich bitte an:
Prof. Dr. Oliver Stein, Institut für Operations Research.