

VORträge zum Operations Research

Kolloquium des Instituts für Operations Research

Zeit: Freitag, 22. Juni 2018, 14:00 Uhr

Ort: Raum New-York, Hauptgebäude FZI Forschungszentrum Informatik,
Haid-und-Neu-Str. 10-14, 76131 Karlsruhe

Es spricht: Prof. Daniele Vigo, DEI University of Bologna, Italy

Zum Thema: **Fast Local Search in Vehicle Routing**

Abstract: We consider several strategies for the efficient implementation of Static Move Descriptors (SMDs), a recently developed technique that significantly speeds up Local Search-based algorithms. SMDs exploit the fact that each local search step affects only a small part of the solution and allow for efficient tracking of changes at each iteration, such that unnecessary reevaluations can be avoided. Despite its significant advantages, the design proposed in the literature suffers from high overhead and considerable implementation difficulty. We developed a simpler implementation that offers better extendibility and significant further speedups of local search algorithms. We also explore the hybridization of SMD with the granular sparsification concept to achieve a possibly better computational efficiency. We experimentally evaluate our findings by applying them to the Capacitated Vehicle Routing Problem (CVRP).

Die Vorträge zum Operations Research wenden sich an alle Interessierten!

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