der Bundeswehr
Universität München

Vortragsankündigung

Am **Mittwoch, den 21.06.2023,** hält **um 16:00 Uhr**

Dr. Alberto De Marchi

einen Vortrag über das Thema

Tools for Nonstandard Optimization Problems: Generalized Formulations and Algorithms

Der Vortrag findet im **Raum 0131** in **Gebäude 33** statt.

Vortragszusammenfassung

Mathematical and computational tools are ubiquitous nowadays, and decision-making in various disciplines leads to optimization problems in very different settings. In this talk we discuss finite-dimensional constrained structured programming in the fully nonconvex setting, capturing a variety of problems that include nonsmooth objectives, combinatorial structures, and nonlinear, set-membership constraints. We will discuss examples that highlight the modeling versatility of nonstandard formulations, with applications in vehicle control, robotics, and data science. Then, the augmented Lagrangian framework is extended to cover this broad problem class, with established asymptotic properties and convergence guarantees under mild assumptions. Finally, seeking to develop algorithms with even wider scope, yet without trading-off performances, we will indicate the theoretical challenges that arise in this unexplored territory.

Alle Interessierten sind dazu herzlich eingeladen.