

Fachgebiet Analysis
Prof. Dr. Daniel Hauer
Prof. Dr. Friedrich Sauvigny

Fachgebiet Optimierung
Prof. Dr. Sabine Pickenhain

Fachgebiet Optimale Steuerung
Prof. Dr. Gerd Wachsmuth



Forschungsseminar Analysis und Optimierung Sommersemester 2026

Im Rahmen des Forschungsseminars spricht am **Donnerstag, den 4. Juni 2026**

Jonas Marko

BTU Cottbus-Senftenberg

Titel: Optimality conditions for integer optimal control problems

Inhalt: We investigate integer optimal control problems, which appear in an abundance of real-world models and problems. Specifically, we are interested in problems with total variation regularization penalizing rapid oscillations of the control and in vector-valued controls that may take finitely many integer values in each component. In the talk, we will see why classical approaches do not yield any useful conditions, how a switching time optimization problem can lead to second order necessary and sufficient conditions with minimal gap and what can be done when the total variation term uses a 1- or ∞ -vector norm to penalize jumps.

Weitere Details zum Seminar: Der Vortrag findet in Raum HG 3.35 des Zentralcampus Cottbus der BTU statt.