ALPEN-ADRIA UNIVERSITÄT KLAGENFURT

INVITATION TO THE DOCTORAL SEMINAR

Shudian Zhao
Universität Klagenfurt

"Nonlinear Energy Network and Heuristic Methods for Large-scale MINLP"

N.2.01 Wednesday, 18 December 2019 10:00 a.m.

Abstract

In this talk I will introduce a nonlinear maximization problem for a simple energy network instance. The network consists of machines to produce heat and a storage tank and it is formulated as a mixed-integer nonlinear programming problem (MINLP). This problem is NP-hard, a large-scale MINLP cannot be solved efficiently by nonlinear solvers. In this talk, I will explain the formulation of the model, the difficulties of this problem and the methods used to solve this problem in practice.

Angelika Wiegele and the Department of Mathematics look forward to seeing you at the talk!