ALPEN-ADRIA UNIVERSITÄT KLAGENFURT

INVITATION TO THE DOCTORAL SEMINAR

Nonlinear Energy Network and Heuristic Methods for Large-scale MINLP

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Chaired by Angelika Wiegele | Department of Mathematics

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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.

We hope to see you there!