Mixed-Integer (Non-)linear Optimization (Gemischt-ganzzahlige Modelle in der nichtlinearen Optimierung)

Seminar SS 2015
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Suggesting Topics:
1. Branch-and-Bound methods for mixed-integer linear and/or non-linear problems: simple experiments;
2. Non-linear Branch-and-Bound methods using piecewise linear functions;
3. Non-linear Branch-and-Bound methods using interior point methods;
4. Non-linear Branch-and-Bound methods using SQP;
5. Efficient tree strategies for linear and/or non-linear Branch-and-Bound methods: simple experiments;
6. Solving mixed-integer non-linear problems using relaxation methods (e.g. Outer Approximation etc.);
7. Algorithms and softwares for linear and/or non-linear mixed-integer problems: simple experiments.

Note: References to the suggesting topics are available if interested.