



# Ankündigung

Wintersemester 2019/2020

## ALGORITHMIC OPTIMIZATION (ALOP) – KOMPAKTKURSE

*„Introduction to Mixed-Integer Nonlinear Optimization “  
Prof. Dr. Martin Schmidt*

*Mixed-integer nonlinear optimization problems (MINLPs) are of great importance in practice because they allow for two crucial modeling aspects. First, using integer variables makes it possible to model decision-making. Second, accurate modeling of real-world phenomena often leads to nonlinearities like in physics or in models of economies of scale. However, the combination of integer variables and nonlinearities also makes these problems extremely hard to solve for large-scale instances of real-world applications.*

*In this compact course, we introduce the class of convex and nonconvex MINLPs, discuss some MINLP-specific modeling tricks, and study the basic algorithms for solving MINLPs.*

*The course will consist of 4 x 2 lectures of 90 min*

**Date, times and locations are as follows:**

<b>Wednesday,</b>	<b>29 January 2020</b>	<b>14:00 – 17:15</b>	<b>HS 10</b>
<b>Wednesday,</b>	<b>5 February 2020</b>	<b>14:00 – 17:15</b>	<b>HS 10</b>
<b>Wednesday,</b>	<b>12 February 2020</b>	<b>14:00 – 17:15</b>	<b>HS 10</b>
<b>Tuesday,</b>	<b>18 February 2020</b>	<b>14:00 – 17:15</b>	<b>HS 10</b>

For further details, refer to the website <https://alop.uni-trier.de/>