The simulation of parameterized mechanical systems is computationally challenging. By exploiting the structure of the problem, **model order reduction** (MOR) can help to reduce memory requirements and computing times while preserving reasonable accuracy.

The course tackles a variety of problem settings and provides basic concepts for (linear) model order reduction of elliptic and parabolic systems and for the prediction of oscillation modes of hyperbolic systems. The course addresses **Master students**.

**Selected topics**
- Finite Element method
- Schur complement
- substructuring
- Craig-Bampton scheme
- dynamic condensation
- projection based MOR
- Galerkin projection
- ONLINE/OFFLINE decomposition
- Proper Orthogonal Decomposition (POD)
- Proper Generalized Decomposition (PGD)

The course will be held in the form of screencasts and web-conferences for tutorials. Details will be available via ILIAS. Registration via C@AMPUS is needed to get ILIAS access.

**First Webex meeting on April 21, 08:00-08:30 (access ▶ ILIAS).**

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