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**Model order reduction for dynamical systems with a lot of inputs
and outputs**

Abstract. The talk will give an overview about model order reduction (MOR) approaches which are able to deal with linear time-invariant (LTI) state space (and even descriptor) systems with a lot of inputs and/or outputs. We motivate the necessity of these MOR methods by several applications from different areas, e.g., circuit simulation or electrical field simulation.

We briefly review existing methods and explain in detail the extended singular value decomposition MOR (ESVDMOR) as well as the balanced truncation for many terminals (BTMT) approach. We show numerical examples.