



CDS
RESEARCH CENTER DYNAMIC SYSTEMS
SYSTEMS ENGINEERING

seminar

“> **On the moment approach in control theory** (https://www.cds.ovgu.de/cds_media/Content_Dokumente/2017+AbsSky+Seminar.pdf)”

Abstract:

We recall the main statements from classical moment problem and discuss their possible application to some problems of control. In the first part we consider the time optimal control problem for finite dimensional systems and its relation with Markov moment problem. The main part is devoted to non-Fourier moment problem in the analysis of exact controllability for infinite dimensional systems. We explain the main ideas of the approach and the mathematical tools used. We also discuss the applications to several particular problems of controlling (non-homogeneous string, Timoshenko beam etc.).