

Abstract Vortrag von Timo Reis im Mathematischen Kolloquium am 17.12.2019:

Passive (partial) differential-algebraic systems

Abstract:

The concept of passivity is studied in conjunction with differential-algebraic equations and partial differential-algebraic equations. In particular, we give a solid basis for folklore sentences like "Passivity means that the system does not generate energy" and "The connection of passive systems is again passive", and discuss solvability of such systems. Thereafter, we consider some concrete examples from mechanics and electrodynamics.