



Systems and Control Group Seminar

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Mathematics Department, University of Aveiro

Room Sousa Pinto (11.2.6)

A discussion on mathematical modelling with
classical and fractional derivatives

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Abstract

Due to their nonlocal properties, fractional derivatives, such as the Riemann-Liouville or Caputo type, are sometimes used to model memory effects. While a solid physical interpretation of these operators is still lacking, fractional models seem to better describe experimental data, as compared to classical ones. During this talk I will discuss advantages and disadvantages of modelling with fractional derivatives. I will also present properties of some particular fractional operators for their potential applications.

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