CONTROLO'2022

15TH APCA INTERNATIONAL CONFERENCE ON AUTOMATIC CONTROL AND SOFT COMPUTING

JULY 6-8, 2022, CAPARICA, LISBON REGION, PORTUGAL

HTTPS://CONTROLO2022.DEEC.FCT.UNL.PT/

Special Session on
"Geometric and Analytic Methods for Nonlinear Data"

Organized by

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Call for Papers

The last decade has witnessed a considerable amount of research being devoted on how to process big and nonlinear data. However, one often neglects the fact that a considerable portion of today's data deluge is mathematically highly structured, in many cases by geometric and/or algebraic constraints. The goal of this special session is to join researchers and experts with different know-how in the field, to present their results and share recent ideas. The importance of a priori knowledge about the mathematical structures of nonlinear data will be emphasized. Furthermore, new methodologies, theoretical approaches and potential applications will be covered.

Topics of interest include, but are not limited to:

- Calculus of variations and optimal control
- Control applications
- Dimensional and model reduction
- Interpolation and extrapolation
- Mathematical modelling
- Optimization on manifolds