## OPTIMAL CONTROL STRATEGIES IN INDUSTRIAL APPLICATIONS

## JOSE J MUÑOZ $^{*}\!\!,$ peter betsch $^{\dagger}\!\!$

\* Universitat Politècnica de Catalunya Barcelona, 08034, Spain j.munoz@upc.edu, https://www.lacan.upc.edu/author/j-munoz/

<sup>†</sup> Institute of Mechanics. Karlsruhe Institute of Technology Karlsruhe, D-76131, Germany <u>peter.betsch@kit.edu</u>,

## ABSTRACT

This minisymposium is dedicated to works that model, design, or solve optimal control problems (or simply control strategies) with potential applications in industry. Optimal control has undergone recent progress in theoretical aspects, in relation to its geometrical characterisation, its numerical solution, or the time-integration strategies of the optimality conditions. We intend to gather any of these aspects.

Some recent salient applications involve the modelling of soft robots, or mobility planning of autonomous vehicles, to name a few. Any of these are welcome, jointly with the following non exhaustive list of potential contributions:

- Analysis of the optimality conditions.
- Numerical strategies for Optimal Control Problems
- Formulations for elastodynamics and fluids.
- Applications in:
  - Trajectory planning
  - Mobility of vehicles
  - Rigid and soft robotics
  - o Constrained mechanical systems
  - Coupled problems: electromechanical, biomechanical, etc.