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# OPTIMAL CONTROL AND SENSITIVITY ANALYSIS

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## ABSTRACT

Optimal control problems (OCP) and sensitivity analysis (SA) are ubiquitous in engineering applications: trajectory control in aeronautics and robotics, path planning in locomotion of vehicles, deformation analysis in elastodynamics and biomechanics, or control of industrial processes, to name a few. The solution of OCPs has also mathematical interest due to the underlying symmetries of the problem statement and the optimal solutions.

This MS focuses on the formulation and numerical solution of optimal control problems and the analysis of sensitivity, and intends to gather engineers, scientists and researchers in applied sciences that investigate the development of numerical strategies for OCP and SA, and that can contribute with novel formulations, applications or numerical algorithms for solving efficiently the optimality conditions.

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