

ENGINEERING DESIGN OPTIMIZATION WITH THE OPEN-SOURCE SOFTWARE SU2

1800 (SCIENTIFIC COMPUTING)

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Key words: Adjoint methods; Multidisciplinary design optimization; Engineering design under uncertainties; Open-source project;

ABSTRACT

SU2 is an open-source software for the analysis of (coupled) partial differential equations (PDEs) and (multi-objective) PDE-constrained optimization problems on unstructured meshes with state-of-the-art numerical methods. The availability of a shared code base facilitates the collaboration of engineers and scientist on a global level and grants access to industry-standard analysis tools. Thus, SU2 fosters a rapid dissemination of advances in numerical methods for (coupled) simulations, and (shape) design optimization (in multiphysics context) for the online community of users and developers.

This mini-symposium invites presentations from engineers and researchers who develop methods within SU2 or use SU2 for their engineering design optimization problems. Topics include, but are not limited to:

1. (Coupled) adjoint methods and algorithmic differentiation.
2. Multidisciplinary design optimization methods and applications.
3. Surrogate-based design optimization methods.
4. Engineering design under uncertainties.

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