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ADJOINT METHODS FOR MULTI-PHYSICS, INCLUDING APPLICATIONS

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ABSTRACT

The proposed symposium is dedicated to the development, validation and applications of multidisciplinary adjoint-based optimization methods. Until today, adjoint-based methods were mainly used in industry for pure aerodynamic design. In order to meet in a near future, the industrial objectives in terms of competitiveness and environmental impact, multi-disciplinary aspects and couplings will become key design drivers, among other, for aircraft and engine manufacturers.

The aim of this symposium is to present the progresses made on multi-disciplinary adjoint based optimization ranging from academic developments up to industrial and complex applications. In this symposium, several partners of the European MADELEINE project [1] will present their most relevant results after 2 years of work but the objective is also to have other contributions from European or international universities, research centres, SMEs and industrial companies among the ‘adjoint community’ .

Due to the multi-disciplinary nature of the subject, contributions from sectors other than aeronautics are also expected (car, and energy industries for instance).

REFERENCES

[1] https://www.madeleine-project.eu/