



## Flow Control Techniques: Advances in Flow System Analysis, Modeling and Applications

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### Message from the Guest Editor

Dear Colleagues,

Flow control is a fascinating topic of fluid dynamics that can play a key role in the route to the CO<sub>2</sub>-neutral growth of aviation transportation. The ambitious goals involved in this road map have pushed the designers towards aggressively optimized designs of flow devices and gas turbine components, which often become more prone to instabilities or abrupt performance losses in off-design conditions.

Therefore, passive and active flow control strategies can enhance the performances of aerodynamic devices and increase safety margins both in subsonic and supersonic flight.

This Special Issue aims to collect the latest advances in the different techniques of passive and active flow control, including theoretical flow modeling, experimental investigations and numerical simulations of controlled/uncontrolled flow fields. Applications of classical approaches or artificial intelligence-based model reductions (e.g., by using deep learning, reinforced learning, and physically informed neural networks) are welcome.

Dr. Michele Ferlauto

*Guest Editor*





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## Message from the Editor-in-Chief

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