



## Control of Dynamic Flow Fields

Guest Editor:

**Dr. Taku Nonomura**

Department of Aerospace  
Engineering, Graduate School of  
Engineering, Tohoku University,  
Sendai, Miyagi, Japan

Deadline for manuscript  
submissions:

**closed (31 July 2021)**

### Message from the Guest Editor

Dear Colleagues,

To accelerate the efforts on the control of dynamic flow fields, we would like to organize the Special Issue "Control of Dynamic Flow Fields", in *Energy*. This Special Issue welcomes, but is not limited to, papers related to any of the three kinds of efforts for flow control:

(1) A detailed analysis of dynamic flow control based on high-fidelity experiments and numerical simulations, such as

- Advanced measurements, such as dynamic particle image velocimetry, for controlled flow fields;
- High-fidelity simulations, such as direct numerical simulations or large-eddy simulations for controlled flow fields.

(2) Reduced order modeling or machine learning to run advanced flow control algorithms such as

- Modal decompositions for modeling controlled flow fields based on the data-driven approach;
- Discourteous Galerkin projection for modeling based on the analytical approach;
- Machine learning such as deep neural networks for flow control algorithms.

(3) Dynamic flow control results using advanced flow control devices, such as plasma actuators such as

- Active flow control using plasma actuators;
- Active flow control using synthetic jets.





# energies



an Open Access Journal by MDPI

## Editor-in-Chief

### Prof. Dr. Enrico Sciubba

Department of Mechanical and  
Aerospace Engineering,  
University of Roma Sapienza, Via  
Eudossiana 18, 00184 Roma, Italy

## Message from the Editor-in-Chief

*Energies* is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

## Author Benefits

**Open Access:** free for readers, with article processing charges (APC) paid by authors or their institutions.

**High Visibility:** indexed within Scopus, SCIE (Web of Science), Ei Compendex, RePEc, Inspec, CAPlus / SciFinder, and other databases.

**Journal Rank:** CiteScore - Q1 (Control and Optimization)

## Contact Us

---

*Energies* Editorial Office  
MDPI, St. Alban-Anlage 66  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/energies](http://mdpi.com/journal/energies)  
[energies@mdpi.com](mailto:energies@mdpi.com)  
[X@energies\\_mdpi](https://twitter.com/energies_mdpi)