

Special Issue

New Advances of Cavitation Instabilities

Message from the Guest Editor

This Special Issue would include contributions of original research and review articles on recent scientific advances in cavitation instabilities. In many applications, cavitating flows are encountered at flow rates with very high Reynolds numbers. This formally unsteady flow type is very sensitive to disturbances. In the ordinary case of a 2D profile, it is rightly recognized that for sufficiently low cavitation numbers, periodic or quasi-periodic cavity shedding arises. This phenomenon is similar to the classical concept of instability in dynamical systems. On more complex problems, like cavitation in inducers, several periodical behaviors can emerge. A more proper understanding of these instabilities is of crucial interest, especially in the field of turbomachinery, still motivating applied and fundamental research on cavitation instabilities. This Special Issue serves to promote exploratory research and development on Hydrodynamic Cavitation Instabilities, both on academic geometries and on industrial cases, with experimental, numerical or analytical tools.

Guest Editor

Dr. Florent Ravelet

Arts et Metiers Institute of Technology, LIFSE, CNAM, HESAM University, 75013 Paris, France

Deadline for manuscript submissions

closed (31 January 2021)



Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



mdpi.com/si/38502

Applied Sciences
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
appls@mdpi.com

[mdpi.com/journal/
appls](https://mdpi.com/journal/appls)





Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



[mdpi.com/journal/
applsci](https://mdpi.com/journal/applsci)



About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,
20133 Milano, Italy

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, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)