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New Advances of Cavitation Instabilities

Guest Editor:

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Deadline for manuscript submissions:
closed (31 January 2021)

Message from the Guest Editor

Dear Colleagues,

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.

Dr. Florent Ravelet
Guest Editor

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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.

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