



## Ref.: Topical Collection “Vortex dominated flows”

Dear Colleague,

We are writing to you on behalf of the Springer-Nature journals *Theoretical and Computational Fluid Dynamics* (TCFD) and *Experiments in Fluids* (EXIF). Together, we have initiated a joint Topical Collection/Special Issue on *Vortex dominated flows*, with the aim to showcase the state-of-the-art in this discipline and to disseminate new ideas in a field which has recently experienced unprecedented growth. Topical Collections in both journals are virtual special issues which are highlighted on the journal homepage and from our experience, enjoy excellent exposure to visitors of our website.

Contributions are welcome that focus on unsteady, vortex dominated flows. If the flow is unsteady and it involves multiple interacting vortices that induce important effects on the flow or the system under consideration, then the research belongs in this Topical collection/Special Issue. We welcome experimental, computational and/or analytical contributions for a range of topics including, but not limited to, unsteady flow separation, wakes flows, pitching/plunging/heaving airfoils, bio-inspired propulsion, gust interaction, fluid-structure interaction, physiological flows, energy harvesting, analytical methods, reduced-order models, numerical and experimental techniques, and data-enabled methods.

Contributions with a computational/theoretical focus will be published in *Theoretical and Computational Fluid Dynamics*, and those with an experimental focus will be published in *Experiments in Fluids*. All submissions will be subject to the regular peer review process of the respective journal. Please note that we can only accept submissions in which conflicts of interest and sources of funding are fully disclosed.

For *Theoretical and Computational Fluid Dynamics* (TCFD) the Special Issue will be edited by Rajat Mittal (JHU) and Ashok Gopalarathnam (NC State). For *Experiments in Fluids* the Topical Collection is being edited by Karen Mulleners (EPFL), and Jerry Westerweel (TU Delft).

Given your significant contribution to vortex dominated flows, we very much hope that you would be willing to support this initiative by submitting a suitable article to *Theoretical and Computational Fluid Dynamics*. Manuscript submission can be made at [this](#) link, or if you click “Submit Manuscript” on the [journal homepage](#).

During the submission process, after selecting the article type, please select ‘Topical Collection: Vortex dominated flows’ under the “details” tab.

Manuscripts accepted for publication in *Theoretical and Computational Fluid Dynamics* are published in the volume immediately following completion of production and the article is then added to the Topical Collection link on the website. In this sense, the Collection is a cumulative process, expanding as each article is published. This avoids authors having to wait for the ‘final’ article of the collection to have their work published. Nevertheless, to consolidate the editorial side and to process the manuscripts as timely as possible, we have set a submission deadline of December 31<sup>st</sup>, 2022 with the aim of having all articles published by Summer 2023.

### Editor-in-Chief

**Prof. Vassilis Theofilis**  
University of Liverpool, UK  
& University of São Paulo, Brazil  
[vnt@liverpool.ac.uk](mailto:vnt@liverpool.ac.uk)

27 July 2022

### Associate Editors

**Shervin Bagheri**  
KTH Mechanics, Sweden

**Sivaramakrishnan Balachandar**  
University of Florida, USA

**Teodor Burghela**  
Laboratoire de Thermique et Energie de  
Nantes UMR CNRS 6607, France

**André Cavalieri**  
Instituto Tecnológico de Aeronáutica,  
Brazil

**Stefania Cherubini**  
Politecnico di Bari, Italy

**Peter Duck**  
University of Manchester, UK

**Ivan Egorov**  
Moscow Institute of Physics and  
Technology, Russia

**Harindra Fernando**  
University of Notre Dame, USA

**Antonino Ferrante**  
University of Washington, USA

**Song Fu**  
Tsinghua University, China

**Alexander Gelfgat**  
Tel-Aviv University, Israel

**Ashok Gopalarathnam**  
North Carolina State University, USA

**Catherine Gorle**  
Stanford University, USA

**Ardeshir Hanifi**  
KTH Mechanics, Sweden

**Patrick Jenny**  
ETH Zürich, Switzerland

**Soshi Kawai**  
Tohoku University, Japan

**Omar Knio**  
King Abdullah University of Science and  
Technology, Saudi Arabia

**Luca Magri**  
Imperial College London, UK

**Karen Mulleners**  
EPFL, Switzerland

**Kilian Oberleithner**  
TU Berlin, Germany

**Tim Phillips**  
Cardiff University, UK

**Sergio Pirozzoli**  
Sapienza University of Rome, Italy

The editors of this Topical Collection at *Theoretical and Computational Fluid Dynamics* hope that you will join us in this endeavour! If you require additional information or have a suggestion, please feel free to contact me or any of the other Guest Editors involved.

Yours sincerely,

Rajat Mittal  
Ashok Gopalarathnam

**Jean-Christophe Robinet**  
Arts et Métiers Paris, France

**Richard Sandberg**  
Melbourne Energy Institute

**Denis Sipp**  
ONERA, France

**Julio Soria**  
Monash University, Australia

**Kunihiko Taira**  
University of California Los Angeles, USA

**Oti Tammisola**  
KTH Mechanics, Sweden

**Oleg Zikanov**  
University of Michigan, USA