Aims & Scope

Computational fluid dynamics (CFD) is increasingly being applied in water-resources and hydraulic engineering to solve practical problems. Current research is focused on making CFD more robust, accurate, and applicable to the most complex flows found in engineering contexts. This special collection of papers will focus on all aspects of practical applications of CFD in water-resources and hydraulic engineering. There is particular interest in the identification of shortcomings and limitations of the method, verification and validation (V&V), simulation results uncertainty quantification (UQ), and field data and calibration studies. The Journal of Irrigation and Drainage Engineering invites prospective authors to submit original manuscripts to a special collection on the CFD Applications in Water-Resources Engineering, with emphasis on hydraulic structures, open channel systems, and natural systems. Specific topics in the Special Collection are expected to include, but are not limited to the following:

- Application of CFD in the design of hydraulic structures;
- Scour and morphological modeling in free-surface flows;
- Application of CFD to transport processes in open channels and estuaries (passive: sediment, pollutant, heat; multi-phase: particle or bubble; reactive; and active);
- Challenges and future potential implementation of CFD tools for water-quality control in natural systems; and
- Procedures for calibration, verification, validation, and uncertainty quantification in applying CFD models.

Submission Guidelines

- Prospective authors should prepare their manuscripts according to guidelines in Author Guide: https://ascelibrary.org/doi/book/10.1061/9780784479018.

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Call for Papers
Computational Fluid Dynamics Applications in Water-Resources Engineering

• In submitting their manuscript electronically, authors should access the journal at the Manuscript Tracking System: https://www.editorialmanager.com/jmireng/default.aspx
• When submitting, the prospective authors should indicate in the submission questions that the paper is being submitted in response to this call for papers (Special Collection: CFD Applications in Water-Resources Engineering).

Please note that this is an invitation to submit papers for peer review and does not imply acceptance for publication. Acceptance of submitted papers depends on the results of the normal refereed peer review process of the journal.

All accepted papers submitted through this solicitation will be published in regular issues of the journal as they are accepted, and they will be added to a special online collection (which is similar to a print version of a special issue) and will be indexed for citations like other regular journal papers.

Deadline for paper submissions
The deadline for paper submissions under this solicitation is December 1, 2020.

Contact Information
For any questions regarding this solicitation, please contact the Editor-in-Chief, Dr. David A. Chin at dchin@miami.edu or Associate Editor Dr. Seyed Hajimirzaie at shajimir@sfwmd.gov.