

OECD/NEA Working Group on the Analysis and Management of Accidents (WGAMA)

# CFD4NRS-10

The 10<sup>th</sup> Workshop on Computational Fluid Dynamics for Nuclear Reactor Safety Issues

Mito City Civic Center, Ibaraki, Japan  
December 10-12, 2025

## CALL FOR PAPERS

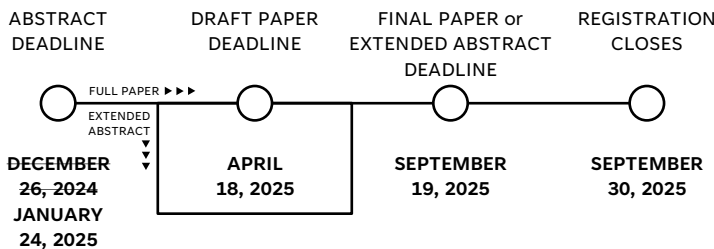
Organized by



Image © IBARAKI PREFECTURAL GOVERNMENT

The CFD4NRS workshop (WS) was launched to establish a forum where numerical analysts, modelers, and experimentalists can exchange information on the application of computational fluid dynamics (CFD) for nuclear power plant (NPP) safety and advanced reactor issues. The WS has been held every two years. To provide an opportunity to exchange and share experiences and research results of the development and applications of CFD and computational multi-fluid dynamics (CMFD) tools for nuclear reactor safety (NRS) issues among international communities (academic scientists, researchers, engineers, regulators, research scholars, and students) by organizing the 10th WS.

## IMPORTANT DATES



## LIST OF TOPICS

### ACCIDENTS, PHENOMENA

- Nuclear Thermal Hydraulics (T/H) Code Development and Analysis
  - Design-bases Accident (DBA)
  - Design Extension Condition (DEC)
- Severe Accidents (SAs)
- Flows in Containment
  - Particle-laden Flows
  - Spray and Aerosol + Wall Interaction
- Pressurized Thermal Shock (PTS)
- Fluid-structure Interaction (FSI)
- Thermal Fatigue of Structure
- Fluid Phase Change
  - Condensation and Evaporation
- Boiling Heat Transfer
  - Departure from Nucleate Boiling (DNB)
  - Critical Heat Flux (CHF)

### METHODS, APPLICATIONS

- CFD for Advanced Reactors including Small Modular Reactors (SMRs)
  - Unstable Passive System Flows
- Reduced Order Models
- Multiscale CFD
- Multiphase CFD
- Multiphysics CFD
- Coupling with System Codes
- CFD Open Source Codes
- Machine Learning (ML) and Artificial Intelligence (AI)
- Verification and Validation (V&V)
- Uncertainty Quantification (UQ)
- Benchmarking
  - DNS - CFD - Experiments
- CFD Best Practice Guidelines (BPGs)

## EVENTS

After the conference, we will offer you a technical tour of the Nuclear Science Research Institute, the Japan Atomic Energy Agency (JAEA) in Tokai-mura. You can see the CIGMA, LSTF, some small experimental equipment, etc.

## SUBMISSION & REGISTRATION

All information on submission, registration fees, etc., is available on our website (<http://cfd4nrs-10.org>) from the right QR code. You can also download abstract and full paper templates.



## COMMITTEE

### GENERAL CHAIRS

Hisashi Ninokata, POLIMI, Tokyo Tech  
Yasuteru Sibamoto, JAEA

### ORGANIZING COMMITTEE

Martina Adorni, NEA	Jan-Patrice Simoneau, EDF
Stephan Kelm, FZJ	Yoichi Utanohara, Komatsu Univ.
Pierre Ruyer, IRSN	Mingjun Wang, XJTU
Yohei Sato, PSI	Satoshi Abe, JAEA

### LOCAL ORGANIZING COMMITTEE

Yuria Okagaki, JAEA	Takeshi Takeda, JAEA
Akira Satou, JAEA	Yuki Wada, JAEA
Masashi Sekine, NRA	

## VENUE

Mito City Civic Center  
Mito, Ibaraki, Japan

Access information  
Mito City Civic Center's  
Official website

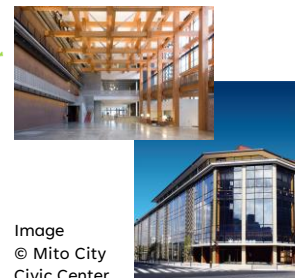


Image © Mito City Civic Center

## CONTACT

CFD4NRS-10 Secretariat Office  
Thermohydraulic Safety Research Group  
Nuclear Safety Research Center  
Japan Atomic Energy Agency  
E-mail: [info@cfd4nrs-10.org](mailto:info@cfd4nrs-10.org)

