

# ICCFD12 The 12th International Conference on Computational Fluid Dynamics

July 14-19, 2024

Kobe International Conference Center, Kobe, Japan



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## About ICCFD

ICCFD is a leading international conference devoted to all innovative aspects of CFD, fundamental and applied. This biennial event began in the year 2000 with the merger of two important CFD conferences: the International Conference on Numerical Methods in Fluid Dynamics (ICNMFD), and the International Symposium on Computational Fluid Dynamics (ISCFD); which had been running since 1969 and 1985, respectively.

The next ICCFD conference will be held on the beautiful city Kobe, and will include a combination of inspiring plenary talks, keynotes and technical sessions of the latest fundamental and applied CFD research. In addition, there will be a chance to meet new and old colleagues at a welcome reception and a Banquet.

## Hosting Organizations



## Conference committees

Conference Chairs: Shigeru Obayashi (Tohoku University)  
Makoto Tsubokura (RIKEN R-CCS/Kobe Univ.)  
General Secretary: Daisuke Sasaki (Osaka Metropolitan University)  
PR Secretary: Takuji Nakashima (Hiroshima University)

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Yoshiaki Abe (Tohoku University)  
Rahul Bale (RIKEN R-CCS/Kobe University)  
Soshi Kawai (Tohoku University)  
Sangwon Kim (RIKEN R-CCS)  
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### Executive Board:

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Shigeru Obayashi, Tohoku University, Japan  
Makoto Tsubokura, RIKEN R-CCS / Kobe University, Japan

### Scientific Committee:

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N. Balakrishnan	S. Kawai	R. Munipalli	Y. Shokin
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C. Brehm	C. Kim	S. Pandya	J. Thomas
D. Caughey	C. Kiris	G. Pascazio	M. Vazquez
J.J. Chattot	P.S. Kulkarni	J.F. Remacle	M. Visbal
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S. Fu	P-H. Maire	M. P. Rumpfkeil	D. You
K. Fujii	D. Mira	M. Sahin	L. Zhang
C. Groth	K. Morgan	R. Sandberg	D.W. Zingg

## Important Dates

Please note the following upcoming date

September, 2023	Call for Abstracts
January 29, 2024	Abstract Submission Deadline
March 14, 2024	Notification of Acceptance
March 21, 2024	Registration Opens
May 31, 2024	Early-bird Registration Ends
July 3, 2024	Final Paper Deadline*

\* Those submitted in full-paper format will be reviewed and possibly selected as articles in the special issue of Computers and Fluids.

## Conference Agenda

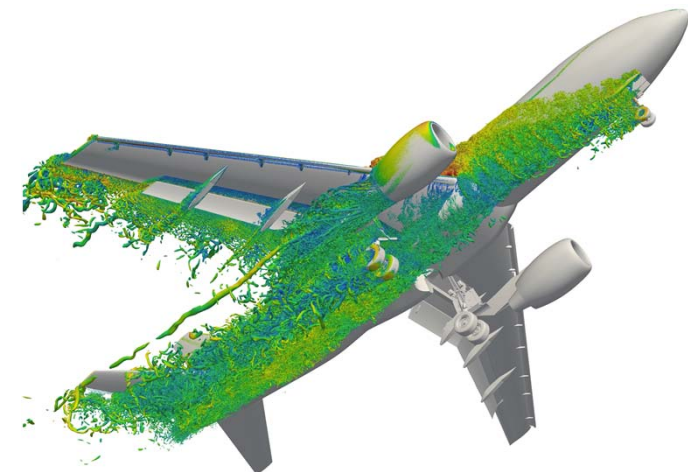
We are planning various invited speakers and a strong technical program devoted to all innovative aspects of CFD, both fundamental and applied.

Registration / "Fugaku" tour	Sunday, July 14 (@ R-CCS)
Conference Begins	Monday, July 15
Welcome Reception	Monday, July 15 (@ Exhibition Hall)
Technical Sessions	Monday, July 15 – Friday July 19
Banquet	Thursday, July 18 (@Portopia Hotel)
Conference Ends	Friday, July 19

ICCFD12 website: [www.iccfd.org/iccfd12](http://www.iccfd.org/iccfd12)

Contact: [iccfd12\\_chair@iccfd.org](mailto:iccfd12_chair@iccfd.org)

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## Scope

ICCFD12 is devoted to all innovative aspects of CFD, fundamental and applied. Subjects of interest include but are not limited to:

- Innovative algorithm development and data science technologies for flow simulations: higher-order methods, iterative methods, parallel algorithms, high-performance computing, mesh adaption, grid generation, meshless methods, immersed boundary methods, level-set methods, artificial intelligence (AI), and optimization algorithms
- Advances in modeling of flow physics in the areas of: steady and unsteady flows, compressible and incompressible flows, flows in porous media, hypersonic and reacting flows, turbulence (transition, DNS/LES, etc.), multi-phase flows, boundary layer stability, and vortex dynamics
- Advanced multidisciplinary applications using the above mentioned technologies: aeroacoustics, flow control, biomedical fluid mechanics, large scale applications, verification and validation methods, and turbomachinery

We invite you to submit an abstract for a paper and a talk. Submission of the final paper is mandatory, while its format is flexible, including extended abstract or presentation slides. Those submitted in full-paper format will be reviewed and possibly selected as articles in the special issue of Computers and Fluids.

## Proposed Topics

- Numerical method
- Incompressible/compressible/hypersonic flow
- Turbulence flow
- Multi-phase flow
- Higher order method
- Reduced order model
- Unsteady problem
- Reacting flow
- Uncertainty analysis
- Aero-acoustics
- Mesh generation/adaptation
- Turbulence simulation(DNS,LES,RANS)
- Fluid-structure interaction
- Optimization
- Data science and AI
- High performance computing
- Industrial applications

## Plenary Speakers

- Takayuki Aoki Tokyo Institute of Technology, Japan
- Jesse Chan Rice University, USA
- Haecheon Choi Seoul National University, Korea
- Gianluigi Rozza Scuola Internazionale Superiore di Studi Avanzati (SISSA), Italy
- Eiji Shima Japan Aerospace Exploration Agency (JAXA), Japan

## Registration Fee\*

General:	¥100,000
Student:	¥40,000

\*Registration fee is tentative and is subject to change.

## Conference Venue

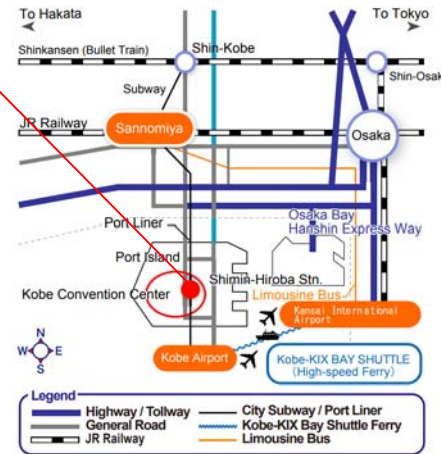
Kobe International Conference Center

- It is located at the center of Port Island, an artificial island, 10 minutes from the center of Kobe (Sannomiya).
- This center has the Main Hall, with a capacity of 692 people, and the prestigious International Conference Room, with a capacity of 360 (in a theater-style layout) where UN and inter-governmental conferences have been held. Its Reception Hall has removable partitions to broaden the usage of the adjacent International Conference Room. There is a total of 21 medium to small meeting rooms, including one with a maximum capacity of 200 people. Each floor has a spacious lounge and lobby and can be reserved for exclusive use in exhibitions, poster sessions, etc.

Kobe International Conference Center



R-CCS / Fugaku



## About Kobe

Kobe is the capital of Hyogo Prefecture with its population of about 1.53 million, designated by government as one of twenty major cities in Japan. Located between the sea and the Rokko mountain range, Kobe is also considered one of Japan's most attractive cities for both domestic and international tourists. Kobe has also been an important port city for many centuries, and was among the first to be opened to foreign trade in the 19th century. In 1995, Kobe was hit by the Great Hanshin-Awaji Earthquake. Today the city has been recovered completely from the disaster, and few signs of the terrible event remain. Kobe is home to many attractions: Arima Onsen, one of the oldest Hot Springs in Japan; The "ten-million-dollar night view" from the top of Mt. Rokko; Akashi Kaikyo Bridge, the longest suspension bridge in the world; Kobe beef, the world-famous melt-in-your-mouth beef; Sake breweries, where you can see how sake is produced. Kobe is close to three airports in the Kansai area (Kansai International Airport, Osaka International Airport, and Kobe Airport) and has a Shinkansen station (Shin-Kobe), offering excellent access, from both international and domestic locations.

