

ICCM2022 Presentations



The 13th International Conference on Computational Methods (Vol. 9, 2022)

25th-28th July 2022

Editors: Guirong Liu, Nguyen-Xuan Hung

Presentations at the International Conference on Computational Methods, Vol. 9, 2022.

This volume is for the 13th ICCM2022, 25th-28th July 2022, Virtual Conference.

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1. WELCOME MESSAGE

Dear Colleagues and Friends,

It is with great pleasure that we welcome you to the 13th International Conference on Computational Methods (ICCM2022) which will be held online via Zoom from July 25 to July 28, 2022, by Ho Chi Minh University of Technology (HUTECH), Vietnam.

The ICCM is an international conference which has been serving as an important forum for exchanging ideas on recent advances in areas related to the computational methods and the numerical modeling of both man-made and natural systems. The conference offers presentations for a wide range of topics to facilitate the exchange of ideas from multiple disciplines and foster academic collaborations. Publications, which have been peer-reviewed and accepted, will be showcased through oral presentations at the conference. All presentations, including abstracts and papers, will be published on our conference website. The online presentation schedule will be posted on the website one week before the conference.

The ICCM conference series were originated in Singapore in 2004, followed by ICCM2007 in Hiroshima, Japan; ICCM2010 in Zhangjiajie, China; ICCM2012 in Gold Coast, Australia; ICCM2014 in Cambridge, England; ICCM2015 in Auckland, New Zealand; ICCM2016 in Berkeley, CA, USA; ICCM2017 in Guilin, China; ICCM2018 in Rome, Italy; ICCM2019 in Singapore; ICCM2020, ICCM2021 and ICCM2022 on the cloud.

We would like to express our appreciation to all members of the Organizing Committee, the International Scientific Committee, and all supporters who have been working tirelessly to make this conference possible. Also, we would like to thank the international reviewers for their meticulous work on reviewing the submitted abstracts and papers. Finally, we would like to thank you for your contribution to the ICCM conferences.

We look forward to welcoming you to the ICCM2022 and we hope to have your continued engagement for future ICCM conferences.

Professor Nguyen-Xuan Hung

Conference Chairman
CIRTECH Institute, HUTECH University of Technology
President of Vietnam Association of Computational Mechanics
Vietnam

Professor Guirong Liu

Honorary Conference Chairman
University of Cincinnati
USA

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3. SUMMARY OF PLENARY LECTURE, SEMI PLENARY LECTURE

Plenary Lecture (PL)

- PL-1:** Multiphase Large-eddy Simulations of Human Cough Jet Development and Expiratory Droplet Dispersion
Shaofan Li, University of California-Berkeley, United States
- PL-2:** Physics Informed Machine-Learning based Computational mechanics
Yuantong Gu, Queensland University of Technology, Australia

Semi Plenary Lecture (SPL) (ordered by last name)

- SPL-1:** Semi-resolved CFD-DEM for particulate flows with thermal convection
Moubin Liu, Peking University, China
- SPL-2:** Numerical modeling of wave propagation in complex media: application to bone diagnostics
Vu-Hieu Nguyen, Université Paris-Est Créteil, France
- SPL-3:** Electro-thermal simulation with IGBTs and model reduction by Generalized Falk method
Loc Vu-Quoc, University of Illinois at Urbana-Champaign, United States
- SPL-4:** Wavelet methods for solving nonlinear mechanical problems
Jizeng Wang, Lanzhou University, China
- SPL-5:** Meshfree Stabilized Collocation Method: theory, algorithm and applications from solid-mechanics to fluid-structure interaction problems
Lihua Wang, Tongji University, China
- SPL-6:** Phase-field modeling of fracture in multiphysical problems
Jiaying Wu, South China University of Technology, China