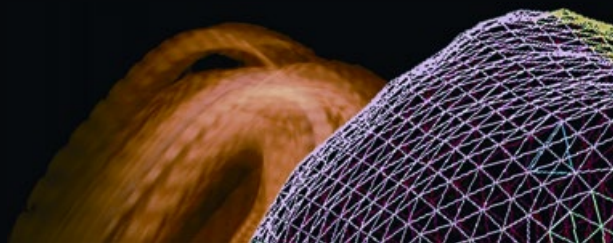


The International Society of
MULTIPHYSICS

Newsletter 2023

MULTIPHYSICS[®]
www.multiphysics.org



The International Society of Multiphysics:

Multiphysics analysis has been developed over the recent past to better represent the behaviour of complex processes by the use of simultaneous modelling of a number of systems. This development is driven by the industrial need to further the understanding of real physical phenomena in order to develop and design safer and more efficient products which are environmentally friendly. Such analyses and investigations were impossible to perform a number of years ago due to a lack of powerful computing systems.

The International Society of Multiphysics acts as a focus for studies, which demand simultaneous addressing of hitherto separate physical disciplines and combining them to generate relational mathematical models and validate them with controlled experiments to enhance the understanding of natural behaviour with a view to improving the quality of lives and promote an environmentally sustainable future.

The aim of the society is to enable all those interested in Multiphysics to discuss and disseminate the most up-to-date research findings for purposes of product and process improvements. This will encompass maximisation of Multiphysics dialogue across national borders at all levels, collaboration between researchers, institutions, industry and governments, and development of curriculum for the higher education sectors worldwide.

The objective is to be recognised by all relevant agencies as a society which promotes the integration of multi-disciplinary sciences and contributes to the future needs of scientific advancement.

The International Journal of Multiphysics:

The International Journal of Multiphysics publishes peer-reviewed original research articles, review papers and communications in the broadly defined field of Multiphysics. The emphasis of this journal is on the theoretical development, numerical modelling and experimental investigations that underpin Multiphysics studies. Articles include fundamental developments as well as industrial applications.

The scope of the journal is to address the latest advances in theoretical developments, numerical modelling and industrial applications which will promote the concept of simultaneous engineering. Typical combinations would involve a selection from subject disciplines such as Acoustics, Electrics, Explosives, Fire, Fluids, Magnetism, Soil, Structures, and Thermodynamics.

Special Issues:

2020: 'Industrial Applications of Fluid Mechanics and Heat Transfer' Assoc. Prof. R. Kanna, Asst. Prof. R. Messahel

2019: 'Explosion, Shock Wave, and High Strain Rate Phenomena'. Prof. K. Raghukandan, Prof. Y. Higa and Prof. H. Iyama

2018: 'Challenges in Computational Fluid Dynamics'. Dr. G. Boiger and Dr. H. Khawaja

2017: 'Explosion, Shock Wave, and High Strain Rate Phenomena'. Prof. P. Chen and Prof. K. Hokamoto

2016: 'Icing and Cold Technology'. Dr. H. Khawaja and Prof. M. Moatamedi

2015: 'SPH and Mesh free Methods'. Prof. M. Souli and Dr. J. Wang

The International Conference of Multiphysics:

The objective of the conference is to share and explore findings on mathematical advances, numerical modelling and experimental validation of theoretical and practical systems in a wide range of applications.

The scope of the conference is to address the latest advances in theoretical developments, numerical modelling and industrial application which will promote the concept of simultaneous engineering. Typical combinations would involve a selection from subject disciplines such as Acoustics, Electrics, Explosives, Fire, Fluids, Magnetic, Nuclear, Soil, Structures and Thermodynamics.

In the past, Multiphysics Conferences have been organised Graz (Austria), Oslo (Norway), Dubai (UAE), Krakow (Poland), Beijing (China), Zurich (Switzerland), London (UK), Sofia (Bulgaria), Amsterdam (The Netherlands), Lisbon (Portugal), Barcelona (Spain), Kumamoto (Japan), Lille (France), Narvik (Norway), Manchester (UK) and Maribor (Slovenia).

Researchers from all around the world participated in these events. The Organisers and the Management Committee are thankful to all attendees for making these events successful.

The nineteenth International Conference of Multiphysics will be organised in Athens, Greece on 12-13 Dec 2024. Please find further details in The International Conference on Multiphysics 2024 Announcement and Call for Papers leaflet.



MULTIPHYSICS 2024
12-13 December 2024
Athens, Greece

Multiphysics Associated Events:

25-27 Apr 2024

Munich, Germany



International Summit on Industrial and Manufacturing Engineering

<https://www.spectrumconferences.com/2024/isime>

14-15 Nov 2023

Munich, Germany



NAFEMS Multiphysics Conference - A Key Technology for Simulation – Driven Engineering

<https://www.nafems.org/events/nafems/2023/multiphysics-conference2023/>

9-10 Nov 2023

London, United Kingdom



6th Annual Modelling in Nuclear Science and Engineering Seminar

<https://www.nuclearinst.com/Events/modelling-in-nuclear-science-and-engineering-2023/15949?Occlid=21850>

6-8 Sept 2023

Maribor, Slovenia



Seventh International Symposium on Explosion, Shock wave and High-strain-rate Phenomena

<https://eshp.um.si/>

08-10 Dec 2022

Seville, Spain



International Conference and Expo on Aerospace & Aeronautical Engineering

<https://www.pagesconferences.com/2022/aerospace-engineering-technology>

If you are interested in organising an event associated with The International Society of Multiphysics, please contact the Society Coordinator.

Multiphysics Student Award:

The International Society of Multiphysics welcomes all students and encourages them to participate in the annual Multiphysics conference. A panel of judges will recommend the award of a student prize. The previous winners of this award were:

2023: M. Muhammed, Arctic University, Norway

2022: S. Dhar, Arctic University, Norway

2021: B. Siyahhan, ZHAW, Winterthur, Switzerland

2020: Z. Andleeb, GIK Institute, Pakistan

2019: A. Sultan and M. Al Shehhi, AGU, UAE

2018: P. Zdziebko, AGH University, Krakow, Poland

2017: T. Li, Beijing Institute of Technology, China

2016: D. Brunner, ZHAW, Winterthur, Switzerland

2015: U. Ali, Salford University, UK

2014: A. Pedersen, Arctic University, Norway

2013: M. Khan, Cambridge University, UK

2012: H. Frid, KTH, Stockholm, Sweden

2011: P. Dongmei, PolyU, Hong Kong

2010: M. Shibuta, Kumamoto University, Japan

2009: H. Khawaja, Cambridge University, UK

Membership and Contact:

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coordinator@multiphysics.org

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