

NEWSLETTER



President's Address From the Office of the Secretary-General IUTAM Symposia 2022 and 2023 IUTAM Summer Schools 2022 IUTAM Endorsed Events 2022

IUTAM Home Page:

https://www.iutam.org or https://www.iutam.net

President's Address

IUTAM finds itself at a cross-roads. As we emerge from the covid pandemic, there are challenges on a global scale that need to be faced. The challenge for mechanics is to remain a vibrant and important subject by linking up with new sciences and new activities. At its next Congress, ICTAM 2024, IUTAM celebrates 100 years of existence since the First International Congress of Applied Mechanics in Delft in 1924. This was the first congress where 207 Scientists from both solid and fluid mechanics got together and nucleated both ICTAM and IUTAM as we know them today. The press release for this congress included the paragraph: This congress, therefore, has more than the usual meaning. So far as it demonstrates the flowering of applied mechanics, it demonstrates this postwar period. So far as the most prominent scientists show the many-sidedness of the problems and some of their solutions, it helps in strengthening the old tie between theoretical and applied mechanics. So far as it is the first really international congress in the exact sciences since 1914, it may help in removing the alienation between the researchers of different countries, who - despite everything - have never been able to do without each other.

These words could have been written in 2022 instead of 1924. IUTAM remains the flagship for a healthy mix of theoretical and applied. Diversity of country and race continue to be central to the successful functioning of IUTAM. But we must continue to embrace Diversity in broader ways including age and gender. I am optimistic that IUTAM has a bright and vibrant future, as evidenced by the large number of symposia and summer schools that are on offer. It has had a fine tradition over its first century, and has the potential to promote mechanics both as a scientific discipline and as way of making the world a better place.

May 2022

Norman Fleck President of IUTAM Cambridge, UK

From the Office of the Secretary-General

Postponement and change of format of IUTAM events due to COVID-19

The IUTAM activities in 2022 are still seeing the effects of the COVID-19 pandemic. Out of sixteen IUTAM events originally scheduled for the years 2020 and 2021, three IUTAM Symposia and one IUTAM Special Event were successfully held, all in 2021, either in a virtual or a hybrid format. The majority of the remaining IUTAM events were postponed by their Chairs and local organizers to 2022 and 2023, following the IUTAM Bureau's decisions allowing such postponement. New dates and formats, if available, are announced in the present IUTAM Newsletter. Please consult the IUTAM website for up-to-date information about all IUTAM events.

Summer 2022 meetings of the IUTAM General Assembly, Bureau, Congress Committee, and Executive Committee of the Congress Committee

The summer 2022 meetings of the IUTAM bodies will be held from 21 to 24 August 2022 in Cambridge, UK. The exact schedule and other details of the meetings can be found on the event's website.

Call for proposals for IUTAM Symposia and Summer Schools 2024-2025

The online submission of proposals for IUTAM Symposia and IUTAM Summer Schools for the years 2024 and 2025 closed on 31 March 2022. In total, 29 proposals for IUTAM Symposia and 3 proposals for IUTAM Summer Schools have been received. The submissions have been evaluated by the IUTAM Symposia Panels and the final decisions will be made by the General Assembly of IUTAM during its meeting in Cambridge, UK on 22-23 August 2022.

IUTAM Report 2021

Symposia proceedings

Since 2018, if the organizers of an IUTAM Symposium decide to publish proceedings, the recommended form of publication is the <u>IUTAM Bookseries</u> by Springer. This is an opportunity to leave a published legacy of a meeting, regardless of whether it is an in-person or a virtual event. Seven volumes (nos. 33–39) of the Series have already been published since 2018.

June 2022

Henryk Petryk Secretary-General of IUTAM Warsaw, Poland

IUTAM Symposia 2022

22-1 = GA.20-10 IUTAM Symposium on Enhancing material

performance by exploiting instabilities and damage

evolution

Place: Warsaw, Poland

Date: June 5 – June 10, 2022

Chair: Prof. K. Kowalczyk-Gajewska

Institute of Fundamental Technological Research

Polish Academy of Sciences

Pawinskiego 5B

02-106 Warsaw, Poland

Email: kkowalcz@ippt.pan.pl

Co-Chair: Prof. A. Srivastava

Texas A&M University College Station, USA Email: ankit.sri@tamu.edu

Website: http://iutam2022warsaw.ippt.pan.pl/

IUTAM Representative on Scientific Committee: Prof. H. Petryk

22-2 = GA.20-02 IUTAM Symposium on Data-driven modeling and

 $optimization \ in \ fluid \ mechanics$

Place: Aarhus, Denmark

Date: June 15 – June 17, 2022 Chair: **Prof. J.N. Sørensen**

Technical University of Denmark (DTU)

Lyngby, Denmark Email: <u>inso@dtu.dk</u>

Co-Chair: Prof. M. Abkar

Aarhus University Aarhus C, Denmark

Email: abkar@mpe.au.dk

Website: https://conferences.au.dk/iutam/

IUTAM Representative on Scientific Committee: Prof. D. Henningson

22-3 = GA.20-07 IUTAM Symposium on Multiscale architecting of

microstructures of solids: mechanics and

manufacture

Place: Beijing, China

Date: June 26 – June 28, 2022

Chair: **Prof. Y. Wei**

Institute of Mechanics

Chinese Academy of Sciences

Bei Si Huan Xi Rd #15, Zhongguancun

100190 Beijing, China

Email: yujie wei@lnm.imech.ac.cn

Website: http://iutam2022-mams-mm.csp.escience.cn/

IUTAM Representative on Scientific Committee: Prof. N.A. Fleck

22-4 = GA.18-01 IUTAM Symposium on Particles, drops and bubbles

in stratified environments

Place: Toulouse, France
Date: July 4 – July 7, 2022
Chair: **Prof. J. Magnaudet**

CNRS & Toulouse University

Institut de Mécanique des Fluides de Toulouse

Allée Camille Soula 31400 Toulouse, France Email: magnau@imft.fr

Website: https://iutam-imft-2020.sciencesconf.org/

IUTAM Representative on Scientific Committee: Prof. A.P.S. Freire

22-5 = GA.20-13 IUTAM Symposium on Optimal design and control

 $of\ multibody\ systems-adjoint\ methods,\ alternatives,$

and beyond

Place: Hamburg, Germany
Date: July 18 – July 21, 2022

Chair: Prof. A. Held

Hamburg University of Technology (TUHH) Institute of Mechanics and Ocean Engineering

Eißendorfer Straße 42 21073 Hamburg, Germany Email: alexander.held@tuhh.de

Website: https://www.tuhh.de/alt/mum/iutam-symposium-

2022.html

IUTAM Representative on Scientific Committee: Prof. P. Eberhard

22-6 = GA.20-01 IUTAM Symposium: From Stokesian suspension

dynamics to particulate flows in turbulence

Place: Toulouse, France

Date: August 29 – September 2, 2022

Chair: **Prof. M. Maxey**

Brown University Providence, USA

Email: martin maxey@brown.edu

Website: https://www.imft.fr/from-stokesian-suspension-

<u>dynamics-to-particulate-flows-in-turbulence/</u>

IUTAM Representative on Scientific Committee: Prof. D. Lohse

22-7 = GA.20-03 IUTAM Symposium on Turbulent/non-turbulent

interface in turbulent shear flow

Place: Beijing, China

Date: October 17 – October 19, 2022

Chair: **Prof. J. Wang**

Beihang University

Key Laboratory of Fluid Mechanics of Ministry of

Education of China

37 Xueyuan Road, Haidian District

100191 Beijing, China Email: jjwang@buaa.edu.cn

IUTAM Representative on Scientific Committee: Prof. A.P.S. Freire

22-8 = GA.18-12 IUTAM Symposium on Data-driven mechanics

Place: Paris, France

Date: October 26 – October 28, 2022

Chair: **Prof. F. Chinesta**

Arts et Metiers

151 Boulevard de l'Hopital

75013 Paris, France

Email: <u>Francisco.Chinesta@ensam.eu</u>

IUTAM Representative on Scientific Committee: Prof. N.A. Fleck

22-9 = GA.18-13 IUTAM Symposium on Optimal guidance and

control for autonomous systems

Place: Honolulu, USA

Date: 2022/2023, no exact dates available yet.

Chair: **Prof. D. Azimov**

University of Hawai'i at Manoa 2540 Dole Street, Holmes 202

96822 Honolulu, USA Email: <u>azimov@hawaii.edu</u>

Website: https://manoa.hawaii.edu/ISOGCAS2020/

IUTAM Representative on Scientific Committee: Prof. P. Eberhard

22-10 = GA.18-14 IUTAM Symposium on Multiphysics analysis of wave propagation in electronic device structures

Place: Ningbo, China

Date: 2022/2023, no exact dates available yet.

Chair: **Prof. J. Wang**

Ningbo University

School of Mechanical Engineering and Mechanics

818 Fenghua Road 315211 Ningbo, China Email: wangji@nbu.edu.cn

IUTAM Representative on Scientific Committee: Prof. H. Gao

22-11 = GA.18-15 IUTAM Symposium on Mechanics of liquid crystal elastomers

Place: Houston, USA

Date: 2022/2023, no exact dates available yet.

Chair: **Prof. P. Sharma**

University of Houston

N207 Engineering Building 1 77204-4503 Houston, USA

Email: psharma@Central.UH.EDU

IUTAM Representative on Scientific Committee: Prof. B.A. Schrefler

IUTAM Symposia 2023

23-1 = GA.18-07 IUTAM Symposium on Ultralarge-scale topology

optimization

Place: Kongens Lyngby, Denmark Date: April 24 – April 26, 2023

Chair: **Prof. O. Sigmund**

Technical University of Denmark Nils Koppels Allé, building 404 2800 Kongens Lyngby, Denmark Email: sigmund@mek.dtu.dk

Website: https://www.conferencemanager.dk/iutam2022

IUTAM Representative on Scientific Committee: Prof. V. Tvergaard

23-2 = GA.20-04 IUTAM Symposium on Data-driven nonlinear and

stochastic dynamics with the control

Place: Xi'an, China

Date: June 5 – June 9, 2023

Co-Chair: **Prof. Y. Xu**

Northwestern Polytechnical University School of Mathematics and Statistics

127 West Youyi Road

710072 Xi'an Shaanxi, China Email: hsux3@nwpu.edu.cn

Co-Chair: **Prof. J. Kurths**

Humboldt-University Berlin

Institute of Physics Berlin, Germany

Email: juergen.kurths@pik-potsdam.de

Website: http://www.iutam2022-xian.com

IUTAM Representative on Scientific Committee: Prof. G. Stépán

23-3 = GA.18-02 IUTAM Symposium on Interface mechanics of

complex flows and soft matter

Place: Beijing, China

Date: June 25 – June 28, 2023

Co-Chair: **Prof. H. Duan**

Peking University

Department of Mechanics and Engineering Science

No.5 Yiheyuan Road, Haidian District

100871 Beijing, China Email: hlduan@pku.edu.cn

Co-Chair: **Prof. C. Sun**

Tsinghua University Beijing, China

Email: chaosun@tsinghua.edu.cn

Website: http://iutam2020.pku.edu.cn

IUTAM Representative on Scientific Committee: Prof. G. McKinley

23-4 = GA.18-11 IUTAM Symposium on Turbulent structure and

particles-turbulence interaction

Place: Lanzhou, China
Date: July 7 – July 9, 2023
Co-Chair: **Prof. X.J. Zheng**

Xidian University

710126 Xi'an, Shaanxi, China Email: xjzheng@xidian.edu.cn

Co-Chair: **Prof. S. Balachandar**

University of Florida

Department of Mechanical & Aerospace Engineering

231 MAE-A, P.O. Box 116250 Gainesville, FL 32611, USA

Email: bala1s@ufl.edu

Website: http://www.iutamlzu.com/

IUTAM Representative on Scientific Committee: Prof. H.K. Moffatt

23-5 = GA.20-11 IUTAM Symposium on Nonlinear dynamics for

design of mechanical systems across different

length/time scales

Place: Tsukuba, Japan

Date: July 31 – August 4, 2023

Chair: **Prof. H. Yabuno**

University of Tsukuba 1-1-1 Ten-no-dai

305-8573 Tsukuba, Japan

Email: yabuno@esys.tsukuba.ac.jp

IUTAM Representative on Scientific Committee: Prof. G. Rega

23-6 = GA.20-12 IUTAM Symposium on Creep in structures

Place: Magdeburg, Germany

Date: September 18 – September 22, 2023

Chair: **Prof. H. Altenbach**

Otto-von-Guericke-Universitaet Magdeburg

Institute for Mechanics Universitaetsplatz 2

39106 Magdeburg, Germany Email: holm.altenbach@ovgu.de

Website: http://www.iutam-symposium.ovgu.de/

IUTAM Representative on Scientific Committee: Prof. B.A. Schrefler

23-7 = GA.18-03 IUTAM Symposium on Dynamics and interface

phenomena of bubbles and droplets at multiple

scales

Place: Tokyo, Japan

Date: 2023, no exact dates available yet.

Chair: Prof. S. Takagi

The University of Tokyo 7-3-1, Hongo, Bunkyo-ku 113-8656 Tokyo, Japan

Email: takagi@mech.t.u-tokyo.ac.jp

IUTAM Representative on Scientific Committee: Prof. A.P.S. Freire

23-8 = GA.20-05 IUTAM Symposium on Dynamics of capsules,

vesicles and cells in flow

Place: Compiègne, France

Date: 2023, no exact dates available yet.

Chair: **Prof. A.-V. Salsac**

Université de Technologie de Compiègne Biomechanics and Bioengineering Laboratory

CS 60319

60203 Compiègne, France Email: a.salsac@utc.fr

IUTAM Representative on Scientific Committee: Prof. T.J. Pedley

23-9 = GA.20-06 IUTAM Symposium on Interfacial effects, gels and

cells

Place: Limerick, Ireland

Date: 2023, no exact dates available yet.

Chair: **Prof. J. Huyghe**

University of Limerick

Bernal Institute

AD3.020 Analog Devices building

Plassey Park Road IE Limerick, Ireland

Email: jacques.huyghe@ul.ie

IUTAM Representative on Scientific Committee: Prof. F. Dias

23-10 = GA.20-08 IUTAM Symposium on Soft matter mechanics

Place: Hangzhou, China

Date: 2023, no exact dates available yet.

Chair: **Prof. Y. Huang**

Northwestern University

Evanston, USA

Email: y-huang@northwestern.edu

Website: http://www.iutam-smm2022.org/

IUTAM Representative on Scientific Committee: Prof. H. Gao

23-11 = GA.20-09 IUTAM Symposium on Mechanics of advanced materials and structures with multifield couplings

Place: Nanjing, China

Date: 2023, no exact dates available yet.

Chair: **Prof. J.N. Reddy**

Texas A&M University Collegue Station, USA Email: inreddy@tamu.edu

IUTAM Representative on Scientific Committee: Prof. I.G. Goryacheva

IUTAM Summer Schools 2022

2022 IUTAM-CISM Summer School on Instability and

bifurcation of solids including coupled field

phenomena

Place: Udine, Italy

Event dates: June 13 – June 17, 2022

Coordinators: **Prof. R. Ogden**

University of Glasgow

School of Mathematics and Statistics

University Place

G12 8SQ Glasgow, UK

Email: Raymond.Ogden@glasgow.ac.uk

Prof. L. Dorfmann Tufts University

Department of Civil and Environmental Engineering

200 College Avenue Medford, MA 02155, USA

Email: Luis.Dorfmann@tufts.edu

Website: https://www.cism.it/en/activities/courses/C2204/

2022 IUTAM-CISM Summer School on Convection and

deformation in porous media: geophysical and

biological flows

Place: Udine, Italy

Event dates: July 11 – July 15, 2022 Prof. C. MacMinn

University of Oxford

Department of Engineering Science

Parks Road

OX1 3PJ Oxford, UK

Email: christopher.macminn@eng.ox.ac.uk

Prof. M. De Paoli

TU Wien

Institute of Fluid Mechanics and Heat Transfer

Wien, Austria

Email: marco.de.paoli@tuwien.ac.at

Website: https://www.cism.it/en/activities/courses/C2207/

2022 IUTAM-CISM Summer School on Sports physics

and technology

Place: Udine, Italy

Event dates: September 19 – September 23, 2022

Coordinators: **Prof. A. Hosoi**

Massachusetts Institute of Technology Department of Mechanical Engineering

77 Massachusetts Avenue

Massachusetts 02139, Cambridge, USA

Email: peko@MIT.EDU

Prof. C. Clanet

LadHyX, Ecole Polytechnique

Palaiseau, France

Email: clanet@ladhyx.polytechnique.fr

Website: https://www.cism.it/en/activities/courses/C2211/

IUTAM Endorsed Events 2022

2022 International Conference on Nonlinear Solid Mechanics

Place: Alghero, Sardinia, Italy
Date: June 13 – June 16, 2022
Co-Chair: **Prof. Marco Amabili**

Email: marco.amabili@mcgill.ca

Co-Chair: Prof. Francesco dell'Isola

Email: francesco.dellisola.aquila@gmail.com

Website: http://www.memocsevents.eu/iconsom2022/

2022 1st International Conference on Mechanics for Global

Challenges

Place: Singapore

Date: June 19 – June 24, 2022 Chair: **Prof. Huajian Gao**

Email: huajian.gao@ntu.edu.sg

Website: https://icmgc.org/

2022 11th European Solid Mechanics Conference

Place: Galway, Ireland
Date: July 4 – July 8, 2022
Chair: **Prof. Peter E. McHugh**

Email: peter.mchugh@nuigalway.ie

Website: http://www.esmc2022.org/

2022 6th Joint International Conference on Multibody System

Dynamics and 10th Asian Conference on Multibody

Dynamics

Place: New Delhi, India

Date: October 16 – October 20, 2022 Chair: **Prof. Subir Kumar Saha**

Email: saha@mech.iitd.ac.in

Co-Chair: **Prof. Rama Krishna K**

Email: rkk@mech.iitd.ac.in

Website: http://imsdacmd2020.iitd.ac.in/

ANNOUNCEMENT from the Committee on Space Research (COSPAR), an affiliated body of the International Science Council (ISC):

2022 44th Scientific Assembly of the Committee on Space

Research (COSPAR) and Associated Events "COSPAR

2022"

Place: Athens, Greece

Date: July 16 – July 24, 2022 Contact: cospar@cosparhq.cnes.fr

https://www.cospar-assembly.org

Abstract Deadline: Mid-February 2022

Topics:

Approximately 140 meetings covering the fields of COSPAR Scientific Commissions (SC) and Panels – details available on the website

https://www.cospar-assembly.org.

Selected papers published in Advances in Space Research and Life Sciences in Space Research, fully refereed journals with no deadlines open to all submissions in relevant fields

Notice on IUTAM Symposia

The IUTAM Symposia are reserved to invited participants. Those wishing to participate in an IUTAM Symposium are therefore advised to contact the Chairman of the Scientific Committee in due time in advance of the meeting.

As of January 2018, if the organizers of an IUTAM Symposium decide to publish proceedings, the recommended route of publication is the <u>IUTAM Bookseries</u> by Springer. Chairpersons of Symposia can contact the Secretary-General of IUTAM for the terms and conditions of publication in this series.

Acceptable forms for proceedings are also special issues of high-quality journals or other forms previously approved by the Bureau of IUTAM.

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