

International Union of Theoretical and Applied Mechanics (IUTAM)

Activities' Report - Year 2020

Enrico De Bernardis

1. Introduction

The pandemic has had a dramatic impact on the operations of IUTAM, although the organization shown tremendous resilience. ICTAM 2020 President Alberto Corigliano and his local organizing committee decided to postpone the 25th Congress (originally scheduled on 23-27 August 2020) to 22-27 August 2021, and to rename it ICTAM 2020+1.

Meanwhile, the Bureau decided to hold the IUTAM General Assembly meeting on the original dates of 25-26 August 2020, albeit virtually (via the Zoom platform), as allowed by changes to the IUTAM Statutes approved by an electronic vote of the General Assembly.

The International Paper Committee worked diligently throughout the first few months of 2020, and met virtually to complete the task of reviewing all 3,098 submitted abstracts. In spring, the Electoral Committee held its meetings remotely as well, took into account suggestions by the General Assembly (GA), and submitted nominations for the seven open Bureau positions to Secretary-General. All authors of accepted papers have been invited to submit updated abstracts.

Meanwhile, President Corigliano and his local team monitored the pandemic and, with the health of the community as their top priority, kept ready to choice on an in-person, virtual or hybrid format. The final decision, earlier this spring, has been made to turn the Congress into virtual.

The IUTAM General Assembly met virtually on 25 and 26 August. The meeting, with nearly 90 attendees, was nevertheless a success, highlighted by important decisions on a number of matters.

Matters concerning Adhering Organizations

The General Assembly admitted the Council on Theoretical and Applied Mechanics of the Materials Research Society of Singapore as a new adhering organization of IUTAM, representing Singapore, with two representatives on the General Assembly.

Matters concerning Associate Organizations

The General Assembly approved the extension of the associate membership of the Armenian National Committee on Theoretical and Applied Mechanics for another four years until 2024.

Election of members of the Bureau

The General Assembly elected the following members of the IUTAM Bureau for the period 2020-2024:

Officers: Professors Norman Fleck (UK, President), Nadine Aubry (USA, Vice-President, ex officio), Dan Henningson (Sweden, Treasurer), Henryk Petryk (Poland, Secretary-General);

Members: Professors Atila Freire (Brazil), Irina Goryacheva (Russia), Kikuo Kishimoto (Japan), Detlef Lohse (Netherlands).

Election of Members-at-Large

The General Assembly elected the following Members-at-Large for the period 2020-2024:

Professors Yilong Bai (China), Peter Eberhard (Germany), Giulio Maier (Italy), Robert McMeeking (USA), Keith Moffatt (UK), Niels Olhoff (Denmark), Timothy Pedley (UK), Jean Salençon (France), Bernhard Schrefler (Italy), Werner Schiehlen (Germany) and Viggo Tvergaard (Denmark).

Election of members of the Congress Committee

This is reported by the Secretary of the Congress Committee in the [Newsletter N-2020-2](#). The new membership of the Congress Committee from 1 November 2020 is recorded on the [IUTAM website](#).

Election of members of the Symposia Panels

The General Assembly elected the following persons to the Symposia Panels for the period 2020 to 2024:

Professors Detlef Lohse (Netherlands, reappointed as Chair of the Fluids Panel), Huajian Gao (Singapore, reappointed as Chair of the Solids Panel), Elisabeth Guazzelli (France, reappointed as a member of the Fluids Panel), Hua Liu (China, reappointed as a member of the Fluids Panel), Alexander Belyaev (Russia, reappointed as a member of the Solids Panel), Davide Bigoni (Italy, appointed as a new member of the Solids Panel).

IUTAM Symposia 2022 and 2023

The General Assembly agreed on thirteen IUTAM Symposia to be held in the years 2022 and 2023. These Symposia are listed in the [Newsletter N-2020-2](#). The Bureau assigned the members of the Scientific Committees according to their expertise in the fields of the Symposia and based on their geographical distribution.

IUTAM Summer Schools 2022 and 2023

The General Assembly agreed on two IUTAM-CISM Summer Schools to be held in 2022 and 2023. More information on these Summer Schools is given hereafter in the [Newsletter N-2020-2](#).

Date and venue of the next General Assembly meeting

The General Assembly agreed to hold its next meeting in Cambridge, UK, in 2022. An additional General Assembly meeting will be held virtually in August 2021 during ICTAM 2020+1 in Milan, Italy.

Finally, the Congress Committee met virtually on 21 and 27 August, with much of its deliberations focused on selecting the location of the 26th International Congress. Three outstanding bids were presented and, after much discussion, it was decided that the 2024 Congress will take place in Daegu, Korea.

2. Main activities carried on by IUTAM during 2020 relevant for Italy and for CNR

All the initiatives scheduled in 2020 suffered from the effect of the pandemic. Eight IUTAM Symposia, one IUTAM-CISM Summer School and one IUTAM Special Event were postponed and rescheduled in 2021 and 2022. More information are available on the IUTAM website at: <https://iutam.org/accueil/upcoming-events/>.

3. Activities carried on by Enrico De Bernardis within the Union during 2020 and impact on the Italian scientific community

The only activity carried out within the frame of institutional commitments was the participation, for the first time, in the General Assembly meeting. As mentioned above, the meeting was held virtually on 25-26 August 2020. The impact on the Italian scientific community has been an increased number of representatives in the governance of the organization, with four Italian scientists newly appointed at significant positions in different IUTAM bodies, as shown in section 6.

4. Evaluation of the participation in terms of benefits and membership cost

The impact of the pandemic on the activities of IUTAM during 2020 makes it very difficult to conduct such an assessment. It is hoped to have a chance of deeper involvement over the next two years, as the situation will turn to normal.

5. Evaluation of Italians' attendance and how to improve interest and involvement

As pointed out above, no scientific or educational initiatives were organized by IUTAM in 2020. So, it is not a meaningful period to assess attendance.

A more significant Italian involvement – as shown in the following section – concerns the governance of IUTAM, with several position occupied by Italian scientists. Further increase, in this sense, has been determined by appointments at the last General Assembly meeting.

6. Italian experts with important roles within the Union or within related Commissions and Programs (if known)

- Maria Vittoria Salvetti, Congress Committee member, appointed by the General Assembly at ICTAM 2016 (see page 7 of the Newsletter N-2016-2);
- Davide Bigoni, Congress Committee member, appointed by the General Assembly in 2014 (see page 8 of the Newsletter N-2014-2), confirmed in office in 2018 (see page 8 of the Newsletter N-2018-2); member of the Symposia Panel for Solid Mechanics, appointed by the General Assembly in 2020 (see page 6 of the [Newsletter N-2020-2](#));
- Alberto Corigliano, President of ICTAM 2020, member of the Executive Committee of the Congress Committee, appointed by the General Assembly in 2020 (see page 9 of the [Newsletter N-2020-2](#));
- Umberto Perego, Secretary-General of ICTAM 2020, will be invited at the meetings of the Executive Committee, as guest and observer (see page 8 of the Newsletter N-2016-2).
- Giulio Maier, Member-at-Large for the period 2020-2024, appointed by the General Assembly in 2020 (see page 5 of the [Newsletter N-2020-2](#));
- Bernhard Schrefler, Member-at-Large for the period 2020-2024, appointed by the General Assembly in 2020 (see page 5 of the [Newsletter N-2020-2](#)).

7. If Union with CNR Commission, short summary about the 2020 CNR Commission activities

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8. Notes

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9. Conclusions

It is hoped that 2021 will be, at least in the second half, a proper time to assess if CNR people could be interested and how they could be more deeply involved in the IUTAM environment. ICTAM 2020+1 Congress could actually be the opportunity for an intermediate term assessment.