

Minutes of the 18th meeting of IFTToMM Technical Committee for Multibody Dynamics

Monday, June 10, 2024, 13:15, at Madison, WI, USA

Attendees:

Francisco González (chair), José Escalona (secretary), Jorge Ambrosio, Wan-Suk Yoo, Sung-Soo Kim, John McPhee, Andreas Müller, Michael Valasek, Aki Mikkola, József Kövecses, Pascal Ziegler, Xinxin Yu

Invited:

Andrés Kecskeméthy

Regrets:

Paulo Flores, Pavel Polach, Marek Wojtyra, Jaroslav Zapomel

1. Opening by the Chair

The 18th meeting of the IFTToMM TC for Multibody Dynamics was opened at 13:15, on June 10, 2024.

González leads the meeting. Escalona is the secretary.

2. Approval of minutes from last meeting

The minutes of the previous meeting, held online, distributed via email, is approved by unanimous vote.

3. Membership

- Currently there are 51 members (27 IFTToMM MOs). The country distribution of the members is shown on screen.
- Yu (Finland) applied for the position of Secretary of the committee.
- José Escalona leaves the position of Secretary of the committee.
- Yu is accepted as new Secretary of the committee by unanimous vote.
- Because of his recent retirement at PNU, Yoo announces his intention to leave the committee. He proposes Jin Hwan Choi as a new member from South Korea. As is customary in this committee, the candidacy of Choi must be proposed by the chair of IFTToMM at South Korea (Prof. Dae-Eun Kim, Yonsei University) by sending his CV to González.

4. Lagrange award (best PhD award)

- González, coordinator of the Lagrange Award “Multibody System Dynamics Outstanding PhD Thesis Prize”, informs about the result of the last edition.
- The winner receives a certificate, Springer books to the value of € 250 and one-year subscription to Multibody System Dynamics.
- Kecskeméthy, Lankarani, Kim, and Ziegler acted as evaluation committee. González announces he will leave the position of Award Coordinator to Ziegler for the 2024 edition of the Award.
- Winner of the 2023 edition was Yuanqing Gu, who did his PhD at Tianjin University (China).

- Honourable mentions were awarded to Seongji Han (Kyung Hee University) and Patrik Schmid (Universität Stuttgart).
- The 2024 edition will open on December 15, 2024, with the same rules as the previous one.
- Awards will be presented during the closing ceremony of IMSD

5. Conferences and events

2023

- 2nd IFToMM for Sustainable Development Goals Workshop (I4SDG 2023), Bilbao, Spain, June 29-30, 2023
- 11th ECCOMAS Multibody Dynamics, Lisbon, Portugal, July 24-28, 2023
- 19th International Conference on Multibody Systems, Nonlinear Dynamics, and Control (MSNDC), Boston, MA, USA, August 20-23, 2023
- 5th International Multibody System Dynamics Workshop & Summer School, Lake Como School of Advanced Studies, September 11-15, 2023
- 16th IFToMM World Congress, Tokyo, Japan, November 5-10, 2023

2024

- The 7th Joint International Conference on Multibody System Dynamics (IMSD), Madison, WI, USA, June 9-13, 2024
- Mechanism and Machine Theory Symposium, Guimarães, Portugal, June 26-28, 2024
- Asian Conference on Multibody Dynamics - ACMD 2024, Suwon, Korea, August 25 – 28, 2024
- 20th International Conference on Multibody Systems, Nonlinear Dynamics, and Control (MSNDC), Washington, DC, USA, August 25 – 28, 2024
- 8th Symposium on Multibody and Mechatronics Systems (MuSMe2024), Universidad Panamericana, Guadalajara, Mexico, September 23-26, 2024
- Advanced School "Computational and geometric mechanics of discrete and continuum systems", International Centre for Mechanical Sciences (CISM), Udine, Italy, September 23-27, 2024
- Advanced School "Contact mechanics in multibody dynamics: from modeling to applications", International Centre for Mechanical Sciences (CISM), Udine, Italy, September 2-6, 2024

2025

- Congreso Nacional de Ingeniería Mecánica (CNIM) 2025, Santander, Spain, June 11 – 13, 2025
- 12th ECCOMAS Multibody Dynamics, Innsbruck, Austria, July 13-18, 2025
- 21st International Conference on Multibody Systems, Nonlinear Dynamics, and Control (MSNDC), Dates and place TBA

6. Publications

a. Books

- Wang, J., Multiscale Multibody Dynamics, Springer, 2023.

b. Thematic Issues

- Ambrósio, J.A.C., Mikkola, A., MUBO Special Issue on its 25th Anniversary. Multibody System Dynamics, 2023.
- Müller, A., Kövecses, J., Kim, C., Padmanabhan, C., Orosz, G., Joint Special Issue: Design and Control of Responsive Robots. Journal of Computational and Nonlinear Dynamics 18(6) – Journal of Mechanisms and Robotics 15(3), 2023.
- Saha, S., Krishna, R., Ambrósio, J., MUBO Special Issue on IMSD 2022. Multibody System Dynamics, 2024.
- Gerstmayr, J., Orzechowski, G., Tassora, A., MUBO Special Issue on Artificial Intelligence within Multibody System Dynamics. Multibody System Dynamics, in progress.
- Arnold, M., Gerstmayr, J., Jelenic, G., Escalona, J, MUBO Special Issue on Numerical Modelling of Highly Flexible Structures. Multibody System Dynamics, in progress.
- Marques, F., MUBO Special Issue on DSM 2022. Multibody System Dynamics, in progress.
- González, F., Malczyk, P., Orzechowski, G., Zwölfer, A., MBDSM Special Issue on Data-Driven Methods for Multibody System Dynamics. Mechanics Based Design of Structures and Machines, open for submission.

7. Next TC meeting

It is proposed to organize a second TC meeting once a year, which will take place online.

Next in-person meeting will take place during ECCOMAS 2025 at Innsbruck, Austria, July 2025.

8. Other business

González explains that the TC website (<https://www.iftomm-multibody.org/>) has been updated and linked to iftomm-world. TC members are encouraged to submit updates (organization of events, publications, open positions, fellowships, etc.) to the TC.

Kecskeméthy recommends to publish and keep updated the list of members of the committee either at <https://iftomm-world.org> or <https://www.iftomm-multibody.org> but do not duplicate. He also recommends to keep active the news section of the website <https://iftomm-world.org>.

The meeting adjourned at 14:00.

Respectfully submitted,

José L. Escalona
Secretary of IFToMM TC-Multibody Dynamics