

TECHNICAL PROGRAM
of 3rd IAA/AAS SciTech Forum 2020
on Space Flight Mechanics and Space Structures and Materials
(December 8-10, 2020)

Time (CET)	Tuesday, December 8
	Opening Ceremony
14.00 – 15.00	Welcome speeches: Sergey Saveliev Deputy Director General for International Cooperation of State Space Corporation "ROSCOSMOS", Russia Vladimir Filippov President of RUDN University, Russia Jean-Michel Contant Secretary General of the International Academy of Astronautics (IAA), France David Spencer Pennsylvania University, Vice President of the American Astronautical Society (AAS), USA Yury Razoumny Chair of International Program Committee of IAA/AAS SciTech Forum, Director of Academy of Engineering of RUDN University, Russia
15.00 – 15.30	Gala Concert of the students of RUDN University
15.30 – 16.30	Round Table 1. "Space traffic management: space object trajectory estimation" Moderator: Moriba Jah, <i>University of Texas at Austin, USA</i> Rapporteurs: Richard Linares, <i>Massachusetts Institute of Technology, USA</i> Roberto Furfaro, <i>University of Arizona, USA</i> Vladimir Agapov, <i>RUDN University, Russia</i>
16.30 – 17.00	Highlight Lecture 1. "SPHERA complex program of space information technologies" Sergey Prokhorov, <i>State Space Corporation "ROSCOSMOS", Russia</i>
17.00 – 17.30	Highlight Lecture 2. "Uncertainty quantification in astrodynamics" Massimiliano Vasile, <i>University of Strathclyde, UK</i>
17.30 – 18.00	Highlight Lecture 3. "Deep reinforcement meta-learning techniques for autonomous space guidance and control" Roberto Furfaro, <i>University of Arizona, USA</i>
Wednesday, December 9	
14.00 – 15.00	Round Table 2: "Perspectives of satellite on-orbit-servicing" Moderator: Antonio Prado, <i>National Institute for Space Research, Brazil</i> Rapporteurs: Arun Misra, <i>McGill University, Canada</i> Brij N. Agrawal, <i>Naval Postgraduate School, USA</i> Vladimir Razoumny, <i>RUDN University, Russia</i> Irina Chernykh, <i>RUDN University, Russia</i>
15.00 – 15.30	Highlight Lecture 4. "Astrodynamics applications in space traffic management and deep space exploration" Richard Linares, <i>Massachusetts Institute of Technology, USA</i>
15.30 – 16.00	Highlight Lecture 5. "Constellation design for regional space-borne geolocation" Pini Gurfil, <i>Technion - Israel Institute of Technology, Israel</i>
16.00 – 16.30	Highlight Lecture 6. "Toward a space domain digital twin for decision intelligence" Moriba Jah, <i>University of Texas at Austin, USA</i>
16.30 – 17.00	Highlight Lecture 7. "Spacecraft guidance and control based on second-order optimality conditions" Mauro Pontani, <i>Sapienza University of Rome, Italy</i>

17.00 – 17.30	Highlight Lecture 8. "Current status of the theory of functional connections with applications" Daniele Mortari, <i>Texas A&M University, USA</i>
17.30 – 18.00	Highlight Lecture 9. "A survey on the powered swing-by maneuvers" Antonio Prado, <i>National Institute for Space Research, Brazil</i>
Thursday, December 10	
14.00 – 15.00	Round Table 3: "New developments in space resources governance: formation of new legal norms or noncompliance with the existing law" Moderator: Irina Chernykh, <i>RUDN University, Russia</i> Rapporteurs: Aslan Abashidze, <i>RUDN University, Russia</i> Alexey Ispolinov, <i>Lomonosov Moscow State University, Russia</i> Jayakumar Venkatesan, <i>Valles Marineris International, India</i> Eleonora Lombardi, <i>Fondazione E. Amaldi, Italy</i>
15.00 – 15.30	Highlight Lecture 10. "Design of multiple near-earth asteroid rendezvous missions" Matteo Ceriotti, <i>University of Glasgow, UK</i>
15.30 – 16.00	Highlight Lecture 11. "NetSat: pioneering formation flight in 3D by nano-satellites" Klaus Schilling, <i>Zentrum fuer Telematik, Germany</i>
16.00 – 16.30	Highlight Lecture 12. "Earth observation applications in forest fire management: a European Mediterranean perspective" Ioannis Zois Gitas, <i>Aristotle University of Thessaloniki, Greece</i>
Closing Ceremony	
16.30 – 17.15	Musical Salon of RUDN University "Moon rhapsody"

TECHNICAL SESSIONS

3rd IAA/AAS Conference on Space Flight Mechanics:

- Orbital Dynamics and Determination
- Guidance, Navigation and Control
- Mission Design and Optimization
- Satellite Constellations and Formation Flying
- Space Missions and Applications

3rd IAA/AAS Conference on Space Structures and Materials:

- Spacecraft Structures and Sensors
- Advanced Space Materials
- Structural Design for Space Applications
- Energy Systems and Propulsion
- Space Policy and Law

GENERAL INFORMATION

The program of the technical session and sessions presentations will be available for all the authors of the papers submitted to IAA/AAS SciTech Forum 2020 during the period of December 8-10, 2020.

Access to the main events of the IAA/AAS SciTech Forum 2020 will be available to whoever have registered and joined the broadcast without limitation by the following link:
https://us02web.zoom.us/webinar/register/WN_KNODUWhTSxyuBgrWZfhnPQ