

Tokyo Institute of Technology

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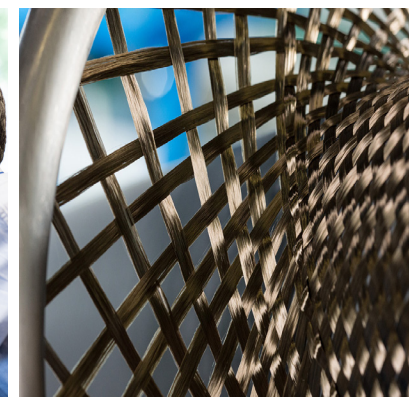
RWTH Aachen University

joint Workshop on „Aerospace“

November 27 – 28, 2023

RWTH Main Building, Skylounge (4th floor)

Templergraben 55, 52062 Aachen



Directions

Venue

Skylounge (4th floor), RWTH Main Building
Templergraben 55, 52062 Aachen

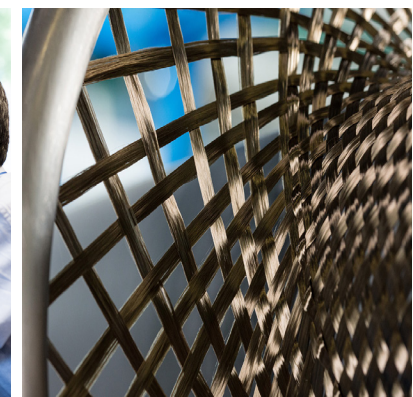
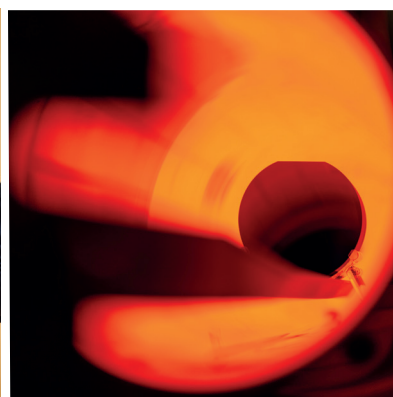
If you enter RWTH Main Building through the main entrance, please cross the Foyer.



Walk the stairs and take the corridor on your righthand side, with „Rektorat“ written on the door.



Take the elevator on your lefthand side to the 4th floor.



Agenda

Monday, November 27

Skylounge (4th floor), RWTH Main Building, Templergraben 55, 52062 Aachen

Opening

9:00 - 9:10 CET

17:00 - 17:10 JST

Welcome addresses

Prof. Nobuhiro Hayashi, Vice President for International Affairs of Tokyo Tech
Prof. Ute Habel, Vice President for International Affairs of RWTH Aachen University
Prof. Sven Ingebrandt, Representative for the cooperation with Japanese universities of RWTH Aachen University

Space Manufacturing / Robotics

Chair: Prof. Toshihiro Chujo

Prof. Kai-Uwe Schröder

9:10 - 9:30 CET

17:10 - 17:30 JST

HOMER

Prof. Kai-Uwe Schröder, Institute of Structural Mechanics and Lightweight Design, RWTH Aachen University

9:30 - 9:50 CET

17:30 - 17:50 JST

Mechanics of Deployable Membrane Space Structures

Prof. Hikaru Sakamoto, Tokyo Tech School of Engineering

9:50 - 10:10 CET

17:50 - 18:10 JST

Laser Sources and Photonic Production Technologies for Space Applications

Dr. Thomas Schopphoven, Fraunhofer Institute for Laser Technology ILT

10:10 - 10:30 CET

18:10 - 18:30 JST

Advanced space systems using robot technology

Prof. Hiroki Nakanishi & Kenichiro Takahashi, Tokyo Tech School of Engineering

10:30 - 10:50 CET

18:30 - 18:50 JST

Hybrid Testbeds for Sensors in Aerospace

Dr. Jörn Thieling, Institute of Man-Machine Interaction, RWTH Aachen University

10:50 - 11:30 CET

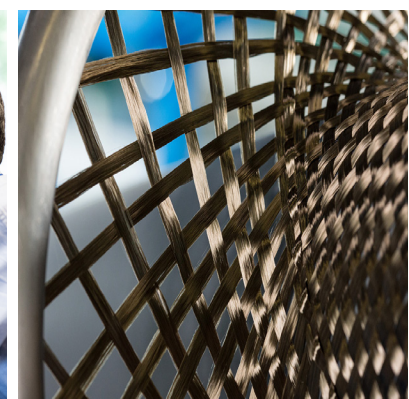
18:50 - 19:30 JST

Open Discussion

11:30 - 13:00 CET

19:30 - 21:00 JST

Lunch



Agenda

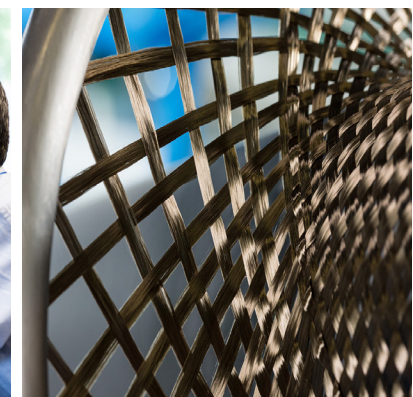
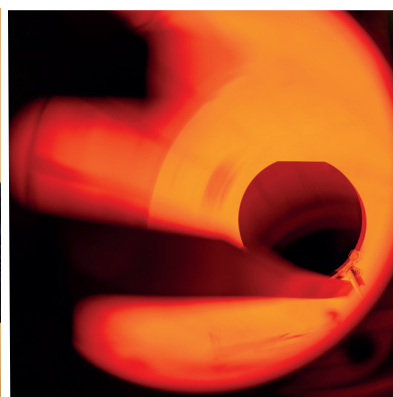
Monday, November 27

Skylounge (4th floor), RWTH Main Building, Templergraben 55, 52062 Aachen

Innovative Methodology and Technology for Spacecraft Control

Chair: Prof. Hiroki Nakanishi
Prof. Ali Gülhan

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| 13:00 - 13:20 CET
21:00 - 21:20 JST | Variable shape spacecraft and its applications
Prof. Kei Watanabe, Tokyo Tech Institute for Innovative Research |
| 13:20 - 13:40 CET
21:20 - 21:40 JST | Space propulsion
Prof. Jan Deeken, Institute of Jet Propulsion and Turbomachinery,
RWTH Aachen University |
| 13:40 - 14:00 CET
21:40 - 22:00 JST | Application of Small Spacecraft with Solar Sail to Exploration in Sun-Earth-Moon
System and Key Technology Development
Prof. Toshihiro Chujo, Tokyo Tech School of Engineering |
| 14:00 - 14:20 CET
22:00 - 22:20 JST | Active Drag Reduction Works
Prof. Wolfgang Schröder, Chair of Fluid Mechanics and Institute of Aerodynamics,
RWTH Aachen University |
| 14:20 - 14:40 CET
22:20 - 22:40 JST | Passive Planetary Probes: Balloon, Kite, Sail
Prof. Daisuke Akita, Tokyo Tech School of Environment and Society |
| 14:40 - 15:30 CET
22:40 - 23:30 JST | Open Discussion & Coffee Break |



Agenda

Monday, November 27

Skylounge (4th floor), RWTH Main Building, Templergraben 55, 52062 Aachen

Fundamental / Elemental technology

Chair: Prof. Daisuke Akita
Prof. Stefan Schael

15:30 - 15:50 CET
23:30 - 23:50 JST

VKa-band Phased Array Systems for SATCOM
Dr. Dongwon You, Tokyo Tech School of Engineering

15:50 - 16:10 CET
23:50 - 00:10 JST

Aerothermal Design Challenges of Space Transportation Systems
Prof. Ali Gülhan, Institute of Jet Propulsion and Turbomachinery,
RWTH Aachen University

16:10 - 16:30 CET
00:10 - 00:30 JST

Deployable Membrane Reflectarray Antennas and Planar Waveguide Slot Array
Antennas for Spacecrafts
Prof. Takashi Tomura, Tokyo Tech School of Engineering

16:30 - 16:50 CET
00:30 - 00:50 JST

iBOSS-Intelligent building blocks for on-orbit satellite servicing
Prof. Kai-Uwe Schröder, Institute of Structural Mechanics and Lightweight Design,
RWTH Aachen University

16:50 - 17:30 CET
00:50 - 01:30 JST

Open Discussion

from 18:00 CET
from 02:00 JST

Dinner at Restaurant „Elisenbrunnen“
Friedrich-Wilhelm-Platz 14, 52062 Aachen



Agenda

Thursday, November 28

Skylounge (4th floor), RWTH Main Building, Templergraben 55, 52062 Aachen

Space Technology / Science

Chair: Prof. Yoichi Yatsu

Prof. Johannes Schleifenbaum

10:00 - 10:20 CET
18:00 - 18:20 JST

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Dr. Alexander Niecke, Chair of Textile Technology in Mechanical Engineering,
RWTH Aachen University

10:20 - 10:40 CET
18:20 - 18:40 JST

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Prof. Elisabeth Clausen, Chair and Institute for Advanced Mining Technologies,
RWTH Aachen University

10:40 - 11:00 CET
18:40 - 19:00 JST

Time-domain astronomy in UV wave-band from space
Prof. Yoichi Yatsu, Tokyo Tech School of Science

11:00 - 11:20 CET
19:00 - 19:20 JST

AMS-100: The next generation magnetic spectrometer in Space
Prof. Stefan Schael, Chair of Experimental Physics I B and Institute of Physics I,
RWTH Aachen University

11:20 - 12:00 CET
19:20 - 20:00 JST

Open Discussion

12:00 - 13:15 CET
20:00 - 21:15 JST

Lunch

13:15 - 13:30 CET
21:15 - 21:30 JST

Transport to Campus Melaten

13:30 - 15:45 CET
21:30 - 23:45 JST

Laboratory Tours
Chair for Digital Additive Production
Chair of Experimental Physics I B and Institute of Physics I
Chair of Manufacturing Technology

15:45 - 16:00 CET
23:45 - 00:00 JST

Transport to City Center

