

Virtual Workshop

on

"Advanced Manufacturing for Millimeter-Wave and Sub-THz Space Payloads"

Monday June 15th, 2020; 9:00-13:00 AM (CEST, UTC+2)

MS-Teams platform

Organizers: O. A. Peverini (CNR-IEIIT), I. Fassi (CNR-STIIMA), S. Pelli (CNR-IFAC)

Abstract. Next-generation payloads for Space applications require complex multi-beam and multi-band systems operating in the mm-wave and sub-THz range for both on-ground and Space segments. As an example, future Earth Observation missions, aimed at climate change monitoring or atmospheric studies, require radiometers with increasing spatial resolution and sensitivity along with full on-ground coverage, possibly operating up to 1 THz. These radiometric performances translate into challenging requirements in terms of fabrication capabilities. The present workshop aims at boosting discussion and collaboration at European level on advanced manufacturing technologies for the development of high-performance passive mm-wave and sub-THz systems.

Registration Details

The workshop is free of charge. Because of limited number of available users in the MS-Teams platform, registration is mandatory @ <u>https://forms.gle/wgrwz5A9JBX7yHou5</u>

An email with the connection details will be sent as a registration confirmation, upon verification of availability in the MS-Teams platform.

Registration deadline: Thursday, June 11th, 11:00 P.M. (CEST)

Contact email: <u>AM4SPACE@ieiit.cnr.it</u>

Workshop language: English



Final Program

| | 9:00-9:10 | Organizers | Welcome Address |
|----|-------------|--|--|
| T1 | 9:10-9:30 | E. Campana Director CNR-DIITET (IT) | Opening Remarks: AeroSpace @ CNR |
| Т2 | 9:30-9:50 | P. Martin Iglesias European Space Agency (NL) | Advanced Manufacturing Needs for Millimeter- Wave and Sub-THz Payloads & Missions |
| Т3 | 9:50-10:10 | M. Di Clemente Agenzia Spaziale Italiana (IT) | ASI Roadmaps for Space Technologies: Status and Opportunities in National and European Context |
| T4 | 10:10-10:30 | A. Murk Bern University (CH) | Prospects on Sub-THz Waveguide Systems for Radiometric Applications |
| | | BREAK | |
| T5 | 10:50-11:10 | Kay Reuter IFAM-Fraunhofer (DE) | Innovative Metal-based Additive Manufacturing Technologies |
| Т6 | 11:10-11:40 | S.S. Dimov, Y. Wang University of Birmingham (UK) | Laser Micro Processing, 3D Printing and SU8 based Methods for Producing THz Devices |
| Т7 | 11:40-12:10 | S. Castagne, D. Reynaerts, J. Qian, KU Leuven University (BE) | Micro Manufacturing Activities at KU Leuven: Micro EDM and Micro milling |
| Т8 | 12:10-12:30 | Michael Salamon Fraunhofer-Institut für Integrierte Schaltungen IIS (DE) | Non-Destructive Analysis of Complex and High Absorbing Structures by Computed Tomography |
| | 12:30-12:50 | Round Ta | ble |
| | 12:50-13:00 | Organizers | Concluding Remarks |