IEEE TRANSACTIONS ON
TERAHERTZ SCIENCE AND TECHNOLOGY
"EXPANDING THE USE OF THE ELECTROMAGNETIC SPECTRUM"

Topic Editors, Topic Areas and Keywords

1. Chris Walker - THz applications in astronomy, space, and environmental science

Keywords: gas spectroscopy, Earth science, galactic astronomy, extragalactic astronomy, cosmic background, planetary science, heterodyne instruments, low noise detectors, imaging arrays

2. Gian Piero Gallerano - THz applications in biology and medicine

Keywords: biological and medical imaging and spectroscopy, RF interactions with tissues, safety and exposure studies, medical diagnostics, clinical instruments, biochemistry studies, hydration and water-protein interactions, biomaterials modeling, clinical studies

3. P. Uhd Jepsen - THz applications in chemistry and spectroscopy

Keywords: chemical analysis and fingerprinting, ultrafast chemistry, pump-probe experiments and instrumentation, spectral methods and analysis, material properties

4. Stefano Alberti - THz plasma science and instruments

Keywords: gyrotrons, BWO, TWT, FEL, coherent RF sources by intense electron beams, DNP-NMR spectroscopy, EPR spectroscopy, RF plasma diagnostics, quasi-optical techniques, imaging using plasma techniques

5. Erich Grossman - THz radar and communications

Keywords: radar imaging, spectroscopy and motion techniques and instrumentation, transceivers, point-to-point communications and LAN, telecomm devices and optical-to-RF conversion, high speed digital electronics

6. Martin Koch, THz industrial and non destructive evaluation

Keywords: industrial and non destructive imaging, spectroscopy and monitoring, industrial process control, commercial packaging and reliability, commercial applications, near field microscopy, imaging and spectroscopy

7. Imran Mehdi and Jack East - THz devices and components

Keywords: active and passive semiconductor and superconductor devices and circuits, two and three terminal devices, wafer processing and materials, solid-state and vacuum sources and sensors, gas laser sources, quantum well devices, micromachined structures and device process technology

8. Giles Davies - THz photonics

Keywords: quantum cascade lasers, photonic devices and systems, optoelectronic devices, photonic crystals, near field photonics based imaging, solid-state and semiconductor lasers

9. Kodo Kawase and Rene Beigang- THz nonlinear optics, optical based sources and imaging

Keywords: nonlinear optics, optical based sources and imaging, laser pumped sources, parametric sources, difference frequency generation, phase matching techniques, metamaterials, plasmonics

10. Nuria Llombart - THz beam formers and guided structures

Keywords: beam formers and networks and antennas, quasi-optics, pulse and CW transmission and transmission media, quasi-optical measurement and analysis techniques

11. Gin-Sik Park - THz modeling and analysis techniques

Keywords: numeric techniques, theory and analysis of devices, circuits, observable phenomena, predicted device and instrument performance and sensitivity, image analysis and enhancement, circuit analysis, EM simulator techniques and models