

## Congress topics

The conference aims to address a wide area of research related to metamaterials, electromagnetic materials and surfaces in the microwave and optical encompassing general theory, design, applications, fabrication and measurements. conference topics include but are not limited to:

- Artificial electromagnetic materials and surfaces
- Plasmonic metamaterials
- Spatially dispersive materials
- Negative index materials
- Chiral and bianisotropic media
- Artificial and composite magnetic materials
- Electromagnetic bandgap structures and photonic crystals
- Nonlinear metamaterials and artificial surfaces, ultrafast phenomena and devices
- Tunable and active metamaterials and surfaces

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Nano-scaled metamaterials

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Periodic structures, frequency selective surfaces, nano-structured surfaces, enhanced transmission

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New physical phenomena in complex media

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Effective medium modelling and materialphenomenology

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Modelling of complex materials and surfaces

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Fabrication and processing of metamaterials and artificial electromagnetic surfaces

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Experimental characterization of metamaterials and measurement techniques

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Electromagnetic waves in complex media: propagation, reflection, diffraction and scattering

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Guiding structures with complex media, including nano-scaled transmission lines

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Complex materials in microwave and optical

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Miniaturisation of microwave and optical devices

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Metamaterial based antennas

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Subwavelength imaging, enhancement of evanescent fields, including nano-imaging and detection

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Plasmon-polariton devices and circuits

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Emerging metamaterial technologies

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Educational aspects of metamaterials