



METAMATERIALS'
2014
COPENHAGEN

Photo: Erik Johansson



DTU Fotonik
Department of Photonics Engineering
DTU Electrical Engineering
Department of Electrical Engineering



8th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics

Metamaterials 2014

Technical University of Denmark, Copenhagen, 25-30 August 2014

The *Eighth International Congress on Advanced Electromagnetic Materials in Microwaves and Optics – Metamaterials 2014*, will comprise a **4-day Conference (25–28 August)**, and a **2-day Doctoral School (29–30 August)**. Organized by the *METAMORPHOSE VI AISBL* (www.metamorphose-vi.org) and hosted by the *Technical University of Denmark* (<http://www.dtu.dk/>), this Congress follows the success of *Metamaterials 2007-2013* and continues the traditions of the highly successful series of *International Conferences on Complex Media and Metamaterials (Bianisotropics)* and *Rome International Workshops on Metamaterials and Special Materials for Electromagnetic Applications and TLC*. The Congress will provide a unique forum to share the latest results of the metamaterials research in Europe and worldwide and bring together the engineering, physics, and material science communities working on artificial electromagnetic materials and their applications at microwaves, millimeter waves, terahertz, and optical frequencies.

Committees

General Chairs

Sergei Tretyakov, Finland (*chair*)
Alexander Schuchinsky, UK (*co-chair*)

Steering Committee

Filiberto Bilotti, Italy (*chair*)
Philippe Barois, France
Vassili Fedotov, UK
Maria Kafesaki, Greece
Giacomo Oliveri, Italy
Dorota Pawlak, Poland
Yiannis Vardaxoglou, UK
Anatoly Zayats, UK
Richard Ziolkowski, US

Technical Program Committee

Andrea Alù, US (*chair*)
Alexandra Boltasseva, US
Olav Breinbjerg, Denmark
Igal Brener, US
Tie-Jun Cui, China
George Eleftheriades, Canada
Vincenzo Galdi, Italy
Anthony Grbic, US
Femius Koenderink, Netherlands
Michael Haberman, US
Philippe Lalanne, France
Mikhail Lapine, Australia
Ferran Martin, Spain
Alessio Monti, Italy
Carsten Rockstuhl, Germany
Jose Sanchez-Dehesa, Spain
Mario Silveirinha, Portugal (*award chair*)
Yaroslav Urzhumov, US

Local Organizing Committee

Andrei Lavrinenko (*chair*)
Radu Malureanu (*secretary*)

The Conference

The Conference includes *plenary presentations* given by leading scientists in the metamaterials research field and will address the main tendencies and discoveries in this field. Keynote talks will address hot topics in the respective research and leading experts will present invited talks, which will review the state-of-the-art and address the latest advancements in their respective areas. The technical oral talks and interactive poster sessions will encompass a broad range of themes, from fundamental electromagnetic theory of metamaterials and complex electromagnetic media to innovative microwave and optical devices.

Submission Deadline: 2 March 2014

Paper Submission

Papers should be up to 3-pages long (including figures and references). Each paper should contain an abstract, a brief conclusion, and a main body where the technical content and the novelty of the work are clearly presented. Papers should be submitted by uploading a camera-ready PDF-file to the website: <http://congress2014.metamorphose-vi.org>.

Authors are requested to use the template provided in the Congress website when preparing their submission. The deadline for the paper submission is **2 March 2014**; late submissions will not be considered. All papers will be reviewed by the Technical Program Committee and the authors will be notified of the status of their submission by **1 June 2014**. Please, visit the Congress website for details of the submission process and paper template.

Similar to last year, authors of accepted and presented papers will be given the option of publishing their work in IEEE Xplore subject to the manuscript compliance with the format and copyright requirements..

Reduced fees. Reduced fees are available for personal or institutional members of the METAMORPHOSE VI and for students and senior participants over 65 years.

Grants. A few travel grants will be provided for students and delegates from low-income countries. The grant rules and application forms will be available at the Congress website. Applications should be submitted online before **1 June 2014**.



Topics:

- Physics of complex electromagnetic materials
- Analytical and numerical modelling of metamaterials
- Homogenization of metamaterials and effective medium models
- Three-dimensional metamaterials
- Planar metamaterials and meta-surfaces
- Carbon nanotubes and graphene in metamaterials
- Nonlinear, tunable and reconfigurable metamaterials
- Active and absorption-free metamaterials
- Chiral and bianisotropic composites
- Metamaterials with extreme parameters
- Quantum metamaterials
- Superconducting metamaterials
- Nonreciprocal metamaterials
- Plasmonics
- Extraordinary transmission
- EBG structures, photonic crystals, and their applications
- Antenna and absorber applications of metamaterials
- RF and microwave metamaterials: design, properties, applications
- Millimeter wave/THz metamaterials and applications
- Optical metamaterials and their applications
- Acoustic and mechanical metamaterials
- Metamaterials for nanoelectronics and nanophotonics
- Nanocircuits and nanoantennas
- Metamaterials for quantum electronics
- Metamaterials for sensing
- Biological and biomedical applications of metamaterials
- Integrated nanophotonics and optoelectronics
- Super-resolution and near-field imaging: effects and devices
- Transformational electromagnetics and optics
- Advances in cloaking and invisibility
- Novel metamaterial concepts
- Experimental techniques and characterization of metamaterials
- Micro- and nano-fabrication of metamaterials
- Top-down and bottom-up fabrication methods
- Metamaterials in education

Scientific Advisory Board

Allan Boardman, UK
 Ortwin Hess, UK
 Andrei N. Lagarkov, Russia
 Joshua Le-Wei Li, China
 Didier Lippens, France
 Ross McPhedran, Australia
 Raj Mittra, US
 Ekmel Ozbay, Turkey
 John B. Pendry, UK
 Vlad Shalaev, US
 Ari Sihvola, Finland
 Costas Soukoulis, Greece/US
 Mark Stockman, US
 Victor G. Veselago, Russia
 Martin Wegener, Germany

Previous Editions

2013 Bordeaux, France
 2012 St. Petersburg, Russia
 2011 Barcelona, Spain
 2010 Karlsruhe, Germany
 2009 London, UK
 2008 Pamplona, Spain
 2007 Rome, Italy

Contact

contact@congress2014.metamorphose-vi.org

Congress Prizes and Student Competition

The Congress Prizes will be awarded in the following categories based on the merits of submitted papers and their conference presentations:

- *best oral paper*
- *best poster paper*
- *best student paper* (oral or poster).

The winners in the first two categories will be selected from the all presenters except the invited speakers.

The best student paper will be decided in the **Student Paper Competition**. Students who wish to participate in the competition should apply online at the Conference website before the **2 March 2014** (the paper submission deadline). Students should be registered at the website to submit a paper and fill in an application form online. During the submission process, students will be requested to upload: (a) a CV outlining their research activities, (b) the paper title, (c) an endorsement letter signed by the student's supervisor/advisor stating that the paper is primarily the result of student's work. The student must be the first author, and the co-authors may be the student's supervisors/advisors. No more than two authors are allowed, unless the student has additional advisors from different institutions or departments, and this fact must be explicitly stated in the endorsement letter. The student competition papers will undergo a regular review process and the shortlisted finalists will be requested to present their papers at a special interactive poster session during the Congress. All the finalists will have the registration fee waived. Only one paper per student will be considered. In case of multiple entries with different papers, the student will be excluded from the competition.

Doctoral School on Metamaterials

A course of the *European School on Metamaterials* operated by the METAMORPHOSE VI will be held in conjunction with the Congress (29-30 August 2014). The theme of the course, which will be co-organized with the *Technical University of Denmark*, will be "**Novel terahertz and infrared metamaterials**". This event will represent a unique opportunity for students and young researchers to get exposure to the latest advancements in the field of metamaterials and to meet the leading experts in this rapidly developing field. For more information visit the website: <http://school.metamorphose-vi.org/>

<http://congress2014.metamorphose-vi.org>