

EUPROMETA – 27th Doctoral School on Metamaterials

Electromagnetic, acoustic, and thermal invisibility

The anomalous interaction between electromagnetic/acoustic/thermal fields and artificial engineered materials / metamaterials allows obtaining unique properties that can be successfully used to design conceptually new and unprecedented components, such as invisibility cloaks. The course – taught by the most eminent scientists working in the fields of electromagnetic (from DC to microwaves and optics), acoustic, and thermal invisibility – aims at giving the basic principles on the theory, design, and, experiments of metamaterial-based cloaking and invisibility in the different fields of Physics and Engineering.

The course is aimed at post-graduate research students in Physics, Material Science, and Engineering, academic and industrial experts, who are interested in metamaterial cloaking.

Date	4-8 May 2015
Venue	“Roma Tre” University, Rome, Italy
Credits earned	1.5 ECTS credits
Web	http://school.metamorphose-vi.org
Contact	filiberto.bilotti@uniroma3.it
Poster presentation	Yes
Travel grants	2
Organizers	A. Alù, F. Bilotti, A. Toscano

Course content

- Theory and fundamental limitations of metamaterial cloaking
- Electromagnetic cloaking and invisibility: theoretical aspects and applications at DC, microwave, and optical frequencies
- Acoustic cloaking: theoretical aspects, experiments, and applications
- Thermal cloaking: theoretical aspects, experiments and applications

Lecturers

Prof. Andrea Alù, USA
 Prof. Filiberto Bilotti, Italy
 Prof. Steven Cummer, USA
 Prof. Sebastien Guenneau, France
 Prof. Àlvar Sanchez, Spain
 Prof. Alessandro Toscano, Italy
 Prof. Sergei Tretyakov, Finland
 Prof. Martin Wegener, Germany



Schedule:

16 hours of teaching
 8 hours of guided study and exercises

Registration:

Deadline 17 April 2015

Address:

“Roma Tre” University – Department of Engineering – Via Vito Volterra 62 – 00144 Rome - Italy

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