



## EUPROMETA – 24th Doctoral School on Metamaterials

# Metamaterials for microwave components and systems

Metamaterials represent a key enabling technology to implement the next generation of antenna and microwave components and systems. The anomalous interaction between the electromagnetic field and metamaterials allows obtaining unique properties that can be successfully used to dramatically improve the performance of existing antenna and microwave components and design conceptually new and unprecedented components. The course will introduce the current state-of-the-art of metamaterial inspired components for antenna and microwave technology, giving particular emphasis to the challenges to take and the limitations to consider when moving towards industrial applications.

This course is aimed at post-graduate research students and industrial engineers who are interested in metamaterials as a new enabling technology for industrial applications.

| Date                | 24-27 March 2014                   |
|---------------------|------------------------------------|
| 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       | 3                                  |

#### **Course content**

- Introduction to metamaterials (MTMs)
- Transmission line MTMs and applications
- Transformation EM and applications
- MTM absorbers
- Cloaking devices based on MTM technology
- Metasurfaces and their applications
- EBG materials and applications

#### Lecturers

- Prof. Filiberto Bilotti, Italy
- Prof. Yang Hao, UK
- Prof. Stefano Maci, Italy
- Prof. Ferran Martin, Spain
- Prof. Alessandro Toscano, Italy
- Prof. Giuseppe Schettini, İtaly
- Prof. Sergei Tretyakov, Finland
- Prof. Lucio Vegni, Italy



### Schedule:

- 12 hours of teaching
- 12 hours of guided study and excercises

#### Registration:

Deadline 3 March 2014

#### Address:

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

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