

Luca Vincetti is Associate Professor of Electromagnetic Fields in the Department of Engineering “Enzo Ferrari” at the University of Modena and Reggio Emilia, Italy.

### **Education & Training**

He received the Degree in Electronics Engineering (cum laude) from University of Parma, Italy, by defending a thesis about the development of Beam Propagation Methods based on the Finite Element Method (FEM-BPM) for optical device analysis. In 1996 he was involved in the "Fluoroaluminate Amplifiers for Second Telecom window" (FAST) project, within the frame of "Advanced Communications Technologies and Services" (ACTS) program developing numerical methods for propagation analysis in Fluoroaluminate doped optical fibers. He did his PhD in Information Technologies at the University of Parma on the development of numerical methods for optical devices analysis and he got the PhD degree in 2000. He also received a Young Research Project grant to study the polarization and non-linear effects in dielectric waveguide components and amplifiers. The same year he became researcher at the National Inter-University Consortium for Telecommunications (Consorzio Nazionale Interuniversitario per le Telecomunicazioni - CNIT) working on Polarization Mode Dispersion (PMD) in optical fibers and proposing for the first time an exact evaluation of the Jones matrix of a single mode fiber affected by PMD. In 2001 he moved to the University of Modena and Reggio Emilia with a grant funded by Cisco Research Center of Cisco Systems entitled "Numerical Analysis and Design of Photonics Bandgap Crystals". The same year he became Assistant Professor of Electromagnetic Fields at the Department of Information Engineering, University of Modena and Reggio Emilia. Since 2014 he has been Associate Professor of Electromagnetic Fields in the same Department.

In March 2015 he was Visiting Professor at the University of Limoges – France. In March 2017 he got the National Scientific Qualification as Full Professor in Electromagnetic Fields.

Since 1<sup>st</sup> November 2019 he has been Coordinator of the Bachelor and Master Degrees in Electronics Engineering.

### **Research Activity**

He has made several key contributions in the development and applications of analytical models of PMD in optical fiber and numerical models based on Finite Element Method for the analysis and design of photonic components. He has also pioneered the use of FEM modal solvers for the analysis of Photonic Crystal Fibers. Currently his research is aimed at investigating the waveguiding mechanism in hollow core inhibited coupling fibers and to the use of them for terahertz applications and high power laser delivering.

He is author or co-author of about a hundred papers in refereed international journals and in proceedings of international conferences.

Please see updated list, citations and h-index at:

<http://scholar.google.it/citations?user=9CN4sZkAAAAJ>

<https://www.scopus.com/authid/detail.uri?authorId=55925484900>

Prof. Vincetti is a Senior Member of the IEEE (Institute of Electrical and Electronics Engineering), Member of the IEEE Photonic Society, of the SIEm (Società Italiana di Elettromagnetismo) and of the CNIT.

Since 2019 he has been Associate Editor of IEEE Photonics Journal.

### **Teaching Activity**

Prof. Vincetti leads undergraduate and graduate courses in Electromagnetic Engineering, Microwaves, and Photonics at the Department of Engineering “Enzo Ferrari” of the University of Modena and Reggio Emilia, Italy.

He is author and co-author of two academic books:

- [L. Vincetti, “Esercizi di Campi Elettromagnetici”, Pitagora Editrice, Bologna, 2005 ISBN 8837115393.](#)

- [S. Selleri, L. Vincetti, A. Cucinotta, "Optical and Photonic Components", Esculapio, Bologna, 2015, ISBN 9788874889242.](#)