UNIVERSITA' DEGLI STUDI DI PAVIA

DOTTORATO DI RICERCA IN FISICA

COLLOQUIA 2020/2021

Giovedì 11 Febbraio 2021, ore 16
Online su Zoom*

Metamaterials for Exotic Wave-Matter Interactions

Andrea Alù

City University of New York and City College of New York, U.S.A.

Abstract: In this talk, I discuss our recent research activity in electromagnetics, optics and acoustics, showing how engineered materials and metamaterials can open exciting venues to induce new phenomena and technologies to tailor light, radio-waves and sound. I discuss venues to induce largely nonlinear and nonreciprocal responses based on suitably engineered materials, and how combining nanofabricated structures with hybrid material platforms can open new directions for material science and nanoscience. In the talk, I will also discuss the impact of these concepts from basic science to practical technology in a variety of wave and material platforms.

*The link Zoom will be sent by email to all people belonging to the Physics Department and INFN Pavia. Other interested people should register before 09/02/2021 at this link: https://forms.gle/5yvo1rHg9Ydm83oE6

Metamaterials for Exotic Wave-Matter Interactions

Andrea Alù
Photonics Initiative, Advanced Science Research Center, City University of New York
Physics Program, Graduate Center, City University of New York
Department of Electrical and Computer Engineering, City College of New York
85 St. Nicholas Terrace, New York, NY 10031, U.S.A.
aalu@gc.cuny.edu, http://alulab.org

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Andrea Alù is the Founding Director and Einstein Professor at the Photonics Initiative, CUNY Advanced Science Research Center. He received his Laurea (2001) and PhD (2007) from the University of Roma Tre, Italy, and, after a postdoc at the University of Pennsylvania, he joined the faculty of the University of Texas at Austin in 2009, where he was the Temple Foundation Endowed Professor until Jan. 2018. Dr. Alù is a Fellow of NAI, AAAS, IEEE, AAAS, OSA, SPIE and APS, and has received several scientific awards, including the IEEE Kiyo Tomiyasu Award, the Vannevar Bush Faculty Fellowship from DoD, the ICO Prize in Optics, the NSF Alan T. Waterman award, the OSA Adolph Lomb Medal, and the URSI Issac Koga Gold Medal.