Curriculum Vitae

Jacopo Bertolotti

Name Jacopo Bertolotti

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Google Scholar profile `http://scholar.google.com/citations?user=wOejDGAAAAAJ`

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Current position

January 2012 - Present: Research fellow at the University of Twente (The Netherlands).
January 2011 - Present: Research fellow at the University of Florence (Italy).

Professional experience

January 2011 - December 2011: Guest Scientist at the University of Twente (The Netherlands).
April 2010 - December 2010: Research fellow at the University of Twente (The Netherlands) on the project *Breakdown of universal transport: is there symmetry between absorption and gain?*
January 2008 - April 2010: Postdoctoral fellow at the European Laboratory for Non-Linear Spectroscopy (LENS) in Florence (Italy) on the project *Transport of light in disordered systems.*
January 2005 - December 2007: PhD fellowship at the University of Florence (Italy).
May 2004 - December 2004 Fellowship at the University of Florence (Italy) on the project *Random lasing.*

Education

June 2008: Summer School *International School on Nanophotonic and Molecular Photonics*, Santander (Spain).
20 February 2008: PhD in Physics at the University of Florence (Italy) with a thesis entitled *"Light transport beyond diffusion"*.
August 2005 Summer School *Photonic Metamaterials: From Micro to Nano Scale*, Erice (Italy).
27 April 2004: Italian Degree ("Laurea") in Physics at the University of Florence with a thesis entitled *"Study on light localization in 1D disordered systems"*.

Founded projects

FIRB 2008 "Futuro in Ricerca": *Anomalous transport of light in complex systems* (principal investigator). Granted by the Italian Ministry of Education, University and Research (MIUR).

Talks and posters at International conferences

- MESA+ Colloquium, Enschede (invited talk).
- GDR Workshop "MésoImage: Recent developments in wave propagation and imaging in complex media", Paris, France, 2012 (oral contribution).
- Unconventional Imaging and Wavefront Sensing VIII, SPIE Optics+Photonics, San Diego, 2012 (oral contribution).
- Reflection, Scattering, and Diffraction from Surfaces II , SPIE Optics+Photonics, San Diego, 2012 (oral contribution).
- Nanoengineering: Fabrication, Properties, Optics, and Devices IX , SPIE Optics+Photonics, San Diego, 2012 (oral contribution).
- Workshop "Light transport and nano-optics in random media", King's College, London, 2012 (invited talk).
- Physics@FOM, Veldhoven, The Netherlands, 2012 (oral contribution).
- CLEO Europe, Munich, Germany, 2011 (poster contribution).
- Physics@FOM, Veldhoven, The Netherlands, 2011 (poster contribution).
- GDR Workshop "MésoImage: Mesoscopic Physics of Waves for Imaging in Complex Media", Paris, France, 2009 (oral contribution).
- XIV Convegno Nazionale di Fisica Statistica e dei Sistemi Complessi, Parma, Italy, 2009 (oral contribution).
- Marian Smoluchowski Symposium on Statistical Physics, Zakopane, Poland, 2008 (poster contribution).
- OSA topical meeting "Meta", Jackson Hole, Wyoming, 2007 (poster contribution).

- PhOREMOST general assembly meeting, Rome, Italy, 2007 (oral contribution).
- PhOREMOST scientific workshop, Florence, Italy 2006 (oral contribution).
- OSA topical meeting *Meta*, Grand Island, The Bahamas, 2006 (oral contribution).
- MMD Meeting, Genova, 2005 (oral contribution).

Conferences organized

- "ATLCS Kick-off meeting", 11 Mar 2011, Florence (Italy).

Invited seminars and lectures

- Looking through an opaque screen, 15 Nov 2012, ASML (The Netherlands)
- Imaging of a hidden object, 23 OCT 2012, University of Exeter (UK).
- Looking through an opaque screen, 20 AUG 2012, Yale University (USA).
- Anomalous transport of light, 02 FEB 2010, University of Twente (The Netherlands).
- Light transport in strongly scattering media: Anderson localization and the formation of Necklace states, 13 JAN 2010, Technical University of Denmark (Denmark).
- Light transport beyond diffusion, 16 DEC 2009, University of Twente (The Netherlands).
- Light superdiffusion in Lévy glasses, 10 APR 2009, Hugo Steinhaus Center (Poland).
- Light propagation in disordered systems: diffusion and beyond, 6 APR 2009, Wrocław University of Technology (Poland).
- Lévy flights (and walks) for light, 16 FEB 2009, University of Bologna (Italy).

Short visits

April 2009: Hugo Steinhaus Center (Wrocław, Poland). Prof. Aleksander Weron.
January 2007: CSIC (Madrid, Spain). Prof. Cefe López.

Referee activity

Optics Express
Optics Letters
Journal of the Optical Society of America A
Journal of the Optical Society of America B
Advanced Materials
Chemical Engineering Communications

Book chapters

K. Vynck, J. Bertolotti, P. Barthelemy, and D.S. Wiersma, *Superdiffusion of light in Lévy glasses* in *Optical Properties of Photonic Structures: Interplay of Order and Disorder*, edited by Mikhail F. Limonov and Richard De La Rue (Taylor & Francis, 2012).

Publications in international refereed journals

I J. Bertolotti, E.G. van Putten, C. Blum, A. Lagendijk, W.L. Vos, A.P. Mosk, *Non-invasive imaging through opaque scattering layers*, Nature **491**, 232 (2012).

II M. Burresi, V. Radhalakshmi, R. Savo, J. Bertolotti, K. Vynck, D.S. Wiersma, *Weak localization of light in superdiffusive random systems*, Phys. Rev. Lett. **108**, 110604 (2012).

III E.G. van Putten, D. Akbulut, J. Bertolotti, W.L. Vos, A. Lagendijk, A.P. Mosk, *Scattering Lens Resolves Sub-100 nm Structures with Visible Light*, Phys. Rev. Lett. **106**, 193905 (2011).

IV J. Bertolotti, K. Vynck, D.S. Wiersma, *Multiple scattering of light in superdiffusive media*, Phys. Rev. Lett. **105**, 163902 (2010).

V P. Barthelemy, J. Bertolotti, K. Vynck, S. Lepri, D.S. Wiersma, *Role of quenching on superdiffusive transport in two-dimensional random media*, Phys. Rev. E **82**, 011101 (2010).

VI J. Bertolotti, K. Vynck, L. Pattelli, P. Barthelemy, S. Lepri, D.S. Wiersma, *Engineering disorder in superdiffusive Lévy glasses*, Adv. Func. Mat. **20**, 965 (2010).

VII P.D. García, R. Sapienza, J. Bertolotti, M.D. Martín, Á. Blanco, A. Altube, L. Viña, D.S. Wiersma, C. López, *Resonant light transport through Mie modes in photonic glasses*, Phys. Rev A **78**, 023823 (2008).

VIII P. Barthelemy, J. Bertolotti, D.S Wiersma, *A Lévy flight for light*, Nature **453**, 495 (2008).

IX R. Sapienza, P.D. García, J. Bertolotti, M.D. Martín, Á. Blanco, L. Viña, C. López, D.S. Wiersma, *Observation of Resonant Behavior in the Energy Velocity of Diffused Light*, Phys. Rev. Lett. **99**, 233902 (2007).

X J. Bertolotti, M. Galli, R. Sapienza, M. Ghulinyan, S. Gottardo, L.C. Andreani, L. Pavesi, D.S. Wiersma, *Wave transport in random systems: Multiple resonance character of necklace modes and their statistical behavior*, Phys. Rev. E **74**, 035602 (2006).

XI M. Ghulinyan, M. Galli, C. Toninelli, J. Bertolotti, S. Gottardo, F. Marabelli, D.S. Wiersma, L. Pavesi, L.C. Andreani, *Wide-band transmission of nondistorted slow waves in one-dimensional optical superlattices*, App. Phys. Lett. **88**, 241103 (2006).

XII A.C. Arsenault, T.J. Clark, G. Von Freymann, L. Cademartiri, R. Sapienza, J. Bertolotti, E. Vekris, S. Wong, V. Kitaev, I. Manners, R.Z. Wang, S. John, D.S. Wiersma, G.A. Ozin, *From color fingerprinting to the control of photoluminescence in elastic photonic crystals*, Nature Mat. **5**, 179 (2006).

XIII L. Cademartiri, J. Bertolotti, R. Sapienza, D.S. Wiersma, G. von Freymann, G.A. Ozin, *Multigram scale, solventless, and diffusion-controlled route to highly monodisperse PbS nanocrystals*, J. Phys. Chem. B **110**, 671 (2006).

XIV L. Cademartiri, G. von Freymann, A.C. Arsenault, J. Bertolotti, D.S. Wiersma, V. Kitaev, G.A. Ozin, *Nanocrystals as precursors for flexible functional films*, Small **1** 1184 (2005).

XV J. Bertolotti, S. Gottardo, D.S Wiersma, M. Ghulinyan, L. Pavesi, *Optical necklace states in Anderson localized 1D systems*, Phys. Rev. Lett. **94**, 113903 (2005).