

MAURIZIO ARTONI

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### **BRIEF PROFILE**

Maurizio Artoni received his M.Sc. and Ph.D. in theoretical physics from the City University of New York in 1990 under the supervision of Prof. J. Birman. He was a National Academy of Science Fellow from 1991 to 1993 working at the Photonics Division of The Goddard Space Flight Center (NASA) in Washington. From 1993 to 1999 he was a Research Officer at the City University of New York (US), the University of Essex (UK) and at Consejo Superior de Investigaciones Científicas (Madrid). He spent the years 2000-2002 at the European Laboratory for Non-Linear Spectroscopy (LENS). He is now Professor at the University of Brescia (Italy) and an adjunct research fellow at the LENS and at the National Institute of Optics. Following his Ph.D. he has received awards from the United States National Academy of Science, the Weizmann Institute of Science and the European Community.

His interests up to date include classical and quantum optics, quantum coherence effects in low-dimensional atomic, semiconductors and photonic structures. The latter research areas have dominated his current activities carried out in cooperation with both national and international teams, respectively, with G. La Rocca and F. Bassani (Scuola Normale Superiore, Pisa), P. Tombesi (Camerino University) and with R. Loudon (Essex University, UK), M. Babiker (York University, UK), R. Corbalan and J. Monpart (Universitat Autònoma de Barcelona), S. Horsley (St. Andrews & Exeter University, UK), J. Gao (Jilin University, China) and Jin-Hui Wu (Center for Quantum Sciences, Northeast Normal University, China). Over nearly the past two decades, national cooperations have been carried out within the three PRIN-MIUR projects “Quantum Communications with Slow Light”, “Quantum coherence and interference in nonlinear optics” and “Toward all-optical information processing in time-dependent photonic band-gap materials”, which he has coordinated (P.I.), and within the PAISS-INFN advanced research program “Photon-Matter” (P.I.). International cooperations have been carried out within the framework of Italy-China bilateral programs of the Italian Ministry of Foreign Affairs (P.I.), the Italy-Spain “Actione Integrada” programs (P.I.), the CRUI-British Council Partnership Programs (P.I.) and within the three European Union networks “Nonclassical Light”, “The Physics of Hybrid Organic-Inorganic Heterostructures for Photonics and Telecommunications” and “Nanoscale Quantum Optics (NQO)”, a COST-action supported by the Horizon 2020 Framework.

He has published over hundred and twenty original papers including several review articles mostly on prestigious physics, optics and photonics international journals including Nature Photonics, Physical Review Letters and Physical Reviews, Nature Light: Science and Applications, Scientific Reports and the Journal of the American Optical Society. Most papers score three-to-four authors on average and largely with international co-authors. He has delivered over thirty-five invited presentations at national and international conferences and workshops in the areas of theoretical mathematical physics, quantum optics and effects of quantum coherence in low-dimensional systems. Over the past two decades, he has been the external evaluator in the research assessment for major national and international science and technology initiatives, including the Comissió d'Avaluació de la Recerca a AQU Catalunya (Spain), the John D. and Catherine T. MacArthur Foundation (US), the NASA-Goddard Space Flight Center (US), the Université Pierre et Marie Curie-Sorbonne Universités (Paris), the National Science Centre (NCN) of the Poland Ministry of Science and Higher Education, the National Institute of Science Education and Research (NISER) of the Government of India and the Italian Ministry of Education, University and Research (MIUR). He has served as a member of Ph.D. Advisory Committees at over a dozen of university campuses (> 40 PhD Theses examined) and has served as member of Faculty Advisory Committees of the Italian Ministry of Education. He has been member of the Organizing Committee and Technical Program Committee of international workshops.