

## PERSONAL INFORMATION

## Maurizio Artoni

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Nationality Italian

## WORK EXPERIENCE

2002 – Present

## Professor.

*University of Brescia, Italy.*

Department of Information Engineering, Via Valotti, 9, 25133 Brescia, Italy.

2000-2002

## INFM Contractor

*European Laboratory for Non Linear Spectroscopy (LENs).*

Via N. Carrara 1, Sesto Fiorentino (Firenze), 50019, Italy.

1997–1999

## Research Officer

*Consejo Superior de Investigaciones Científicas (CSIC).*

Calle Serrano, 117, 28006 Madrid, Spain.

1995-1996

## Research Officer

*University of Essex.*

Department of Physics, Wivenhoe Park, Colchester CO4 3SQ, UK

1994

## Teaching &amp; Research Officer

*Hunter College, The City University of New York.*

Department of Physics and Astronomy, 695 Park Ave, New York, NY 10065, USA

1994-1995

## Research Associate (Feinberg Fellow)[declined]

*The Weizmann Institute of Science.*

Department of Physics and Chemistry, Herzl St 234, Rehovot, Israel

1992-1993

## Research Associate (US-National Academy of Science Fellow)

*NASA Goddard Space Flight Center (GSFC).*

NRC of the National Academy of Science, 500 Fifth Street, NW, Washington, DC 20001, USA

1986-1987

## Researcher/Independent Consultant.

*Società Italiana Vetro (SIV), Italy.*

## EDUCATION AND TRAINING

1993-Conferred

## Ph.D. in Theoretical Physics.

ISCED 2

*The City College of the The City University of New York (CUNY), New York, USA.*

1986

## M. Sc. in Physics.

ISCED 6

*The City College of the The City University of New York (CUNY), New York, USA.*

1982

## Laurea in Physics

ISCED 6

University of Parma, Parma, Italy.

## PERSONAL SKILLS

Mother tongue Italian

### Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
French	C2	C1	B2	B1	B2
Spanish	C1	C1	B1	A2	A2

Levels: A1 and A2: Basic user – B1 and B2: Independent user – C1 and C2: Proficient user  
[Common European Framework of Reference for Languages](#)

**Cooperative skills** – Over the past two decades I have worked in various national and international research teams (See *Brief Profile* below).

**Organisational/Managerial skills** – Over the past two decades, I have coordinated as Principal Investigator (P.I.) various national as well as international projects and I served as external evaluator in the research assessment for major national and international science and technology initiatives as well as for the Italian Ministry of Education, University and Research (MIUR) (See *Brief Profile* below).

**Digital & Computer skills** – Office and iOS, Latex and Mathematica software.

## ADDITIONAL INFORMATION

**Publications** He has published over hundred and thirty original papers including several review articles mostly on prestigious 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. More details can be found at major abstract and citation database of peer-reviewed literature such as e.g. Scopus, ISI-Web of Science, etc (See *Brief Profile* below).

## BRIEF PROFILE MAURIZIO ARTONI

Department of Information Technology, Brescia University, Italy.

Maurizio Artoni received his M.Sc. and Ph.D. in physics from the City University of New York (CUNY). He was thereafter a National Academy of Science Fellow working at the Photonics Division of The Goddard Space Flight Center (NASA) in Washington, at the City University of New York (US), at 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 laboratories and at the National Institute of Optics of the CNR. 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 quantum optics and quantum coherence in low-dimensional photonic platforms for information and communication technology (ICT). Spurred by the fast rise of machine learning and artificial intelligence he's lately being interested to apply such a long lasting expertise on integrated photonics to investigate platforms that replace traditional semiconductor chips that use electricity with optical chips powered by light. These are low energy and fast and might just be the hardware needed to power modern AI revolution.

He has published over hundred and thirty original papers, including several review articles mostly on prestigious physics, optics and photonics international journals as 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 quantum optics and effects of quantum coherence in low-dimensional systems for next generation ICT devices.

The above research activities have been 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 as Principal Investigator (P.I.), and within the PAISS-INFM advanced research program "Photon-Matter" (P.I.). International cooperations have been carried out within the framework of two Italy-China bilateral programs of the Italian Ministry of Foreign Affairs and the National Science Foundation of China, for which he is the current coordinator (P.I.) of the project "Harnessing Color Entanglement For Information and Communication Technology, the Italy-Spain "Azione Integradas" 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 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 about twenty university campuses (> 60 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.

M. Artoni

14/03/22