

Curriculum Vitae – Onofrio M. Maragò

ONOFRIO M. MARAGÒ

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CURRENT POSITION

12/2001 – **CNR Researcher**, Istituto per I Processi Chimico-Fisici, **Consiglio Nazionale delle Ricerche**, Messina, Italy.
Optical tweezers, nanomaterials, Raman & enhanced spectroscopies, cold atoms.

EDUCATION

1997 – 2001 **DPhil in Atomic & Laser Physics**, Supervisor: Prof. C. J. Foot
University of Oxford, Clarendon Laboratory, Department of Physics, Oxford, UK.
Thesis: “*The Scissors Mode and Superfluidity of a Bose-Einstein condensed gas.*”

1997 **Master in Physics (Laurea)**, Supervisor: Prof. E. Arimondo
University of Pisa, Department of Physics, Italy. 110/110 *cum laude*.
Thesis: “*Laser cooling of Cs atoms by coherent population trapping.*”

LANGUAGE SKILLS

English: Proficient; Italian: Mother tongue; German: Intermediate; French: Basic.

GRANTS (PRINCIPAL INVESTIGATOR), FELLOWSHIPS, AND HABILITATIONS

2017 **National Scientific Habilitation (ASN)**, habilitation to teach as Full Professor in Italian universities.

2013-2015 **National Research Program 2007-2013** - “Piano di Azione e Coesione”, project PAC02L3_00087 “Social Innovation cluster by a cross-disciplinary nanotechnology platform environmental monitoring and healthcare (**SOCIAL-NANO**)” – (2 years).

2013 **National Scientific Habilitation (ASN)**, habilitation to teach as Associate Professor in Italian universities.

2010-2012 **International Joint Project (2010-2012)**, **Royal Society**, with Department of Physics & Astronomy, University College London (UK). “Photonic Force Microscopy with Nanostructures”. – (2 years).

2009-2010 **International Joint Project (2009-2010)**, **Royal Society**, with Department of Engineering, Cambridge University (UK). “Optical Trapping of Carbon Nanotubes”. – (2 years).

2008-2009 **CNR project “Curiosity-Driven Research” (2006-2007)**, Mod. CNR DG-RSTL.063.006; “Study and manipulation of colloidal systems by multiple optical tweezers”. – (2 years).

2006-2008 **International Joint Project (2006-2008)**, **Royal Society**, with Department of Physics & Astronomy, University College London (UK). “Microstirring of Complex Ionic Liquids with Optical Tweezers”. – (2 years).

2006 **CNR Short Term Mobility project**, with Department of Physics & Astronomy, University College London (UK). “Microrheology of Complex Ionic Liquids with optical tweezers”. – (1 month).

2003-2004 **National Research Program, FIRB 2001**, “Manipulation at the nanometer scale by laser cooling technology” – (2 years).

2002-2005 **European Project, V Framework Program**, Project Number: IST-2001-32264, Information Society Technologies, NID initiative “Nanodeposition of active ordered structures by cold atoms technologies (**NANOCOLD**)” – (3 years).

2000-2001 **Junior Research Fellowship**, “The scissors mode and superfluidity of a Bose-Einstein condensed gas”, Linacre College, Oxford (UK).

1998-2001 **“Marie Curie” Individual Fellowship**, project "Bose-Einstein condensation in a weakly interacting gas", N. ERB FMBICT983077, TMR Program 1997, IV Framework Program, at the Clarendon Laboratory, Oxford University, UK.

TEACHING ACTIVITIES

Despite the CNR is not an academic institution, I have been teaching at both undergraduate and graduate level in several universities (Messina, Catania, Palermo, Reggio Calabria, Cosenza). Mainly general topics in photonics, plasmonics, optical forces, atomic physics. The courses at the graduate level are often taught in English because of international students present in the audience.

2008 – Member of the **Board of the Doctorate School** in Physics of the University of **Messina**. Here I teach an advanced course on optical forces on particles and atoms (8 hours/year).

2012 Internal course (10 hours) at the **Scuola Superiore di Catania**, Mediterranean University Center, Università di Catania, within the subject “Synthesis, nanocharacterization, and optical trapping of nanostructures materials”

2009 – 2010 Course of basic Physics (40 hours) at the Faculty of Architecture, **Università “Mediterranea” di Reggio Calabria**.

2012 Course on lasers, photonics and optical forces (14 hours) within the advanced Master II level “Nanotechnologies for sustainable energies”, **Università di Palermo**, Department of Electrical, Electronic, and Telecommunications.

2013 Course on optical forces, trapping and manipulations of particles and atoms (15 hours) within the advanced Master II level “Beyond Nano”, **Università della Calabria**, Department of Physics, Arcavacata (Rende).

SUPERVISION OF POSTDOCTORAL RESEARCHERS AND DOCTORAL STUDENTS

2014 – 2016 Dr. Donatella Spadaro (post-doc) – *SOCIAL-NANO project*.

2013 – 2015 Alessandro Magazzù (PhD in Physics, University of Messina) – *Optical trapping and thermal dynamics of Silicon nanowires*

2011 – 2015 Marco Monaca (PhD in Electronic Engineering, University of Messina) – *Optical trapping of nanostructures*

2011 – 2014 Roberto Stassi (co-supervisor, PhD in Physics, University of Messina) – *Cavity QED with artificial atoms: strong and ultrastrong coupling regime*

2011 – 2014 Rania Sayed (PhD in Physics, University of Messina) – *Optical Trapping of Micro and Nanoparticles with Optical Feedback*

2008 – 2011 Alessandro Ridolfo (co-supervisor, PhD in Physics, University of Messina) – *Quantum Optical Properties of Strongly Coupled Systems*

SUPERVISION OF MASTER AND BACHELOR STUDENTS

2014 – 2015 Mara Di Filippo (Bachelor in Chemistry, University of Messina)

2012 – 2013 Giulia Rambaldi (Bachelor in Physics, University of Messina)

2012 – 2013 Sebastiano Vasi (Master in Physics, University of Messina)

2011 – 2012 Paolo Pirrone (Bachelor in Engineering, University of Messina)

2011 – 2012 Giuseppe Chirieleison (Bachelor in Engineering, University of Messina)

2010 – 2011 Rosario Stornante (Bachelor in Physics, University of Catania)

2009 – 2010 Sebastiano Vasi (Bachelor in Physics, University of Messina)

2008 – 2009 Marco Monaca (Master in Engineering, University of Reggio Calabria)

2008 – 2009 Giuseppe Cassone (Bachelor in Physics, University of Messina)

2008 – 2009 Emanuele Cavallaro (Bachelor in Physics, University of Messina)

2006 – 2007 Fedora Palmisano (Master in Electronic Engineering, University of Messina)

2005 – 2006 Giovanni Corvitto (Bachelor in Electronic Engineering, University of Messina)

2005 – 2006 Giuseppe Sindoni (Bachelor in Physics, University of Messina)

2004 – 2005 Francesco Previti (Master in Electronic Engineering, University of Messina)

SUPERVISION OF VISITING PHD STUDENTS & UNDERGRADUATE STUDENTS

2017 Silvie Bernatova – Visiting PhD Student ISI-CAS, Czech Republik (1 month).

2016 Fatemeh Kalantarifard – Visiting PhD Student Bilkent University, Turkey (3 months).

2015 Thomas Smart – Visiting PhD Student University College London, UK (1 month).

- 2012 Marios Sergides – Visiting PhD Student University College London, UK (1 week).
 2012 Susan E. Skelton – Visiting PhD Student University College London, UK (1 week).
 2010 Giulia Privitera – Visiting PhD Student University College London, UK (2 weeks).
 2010 Oksana Trushkevych – Visiting PhD Student University College London, UK (2 weeks).
 2009 Tawfique Hasan – Visiting PhD Student University College London, UK (1 month).
 2005 – 2015 Tutor of more than 20 students for their university training stage (3 months each) at the CNR-IPCF (Messina) within the Physics, Chemistry, and Electronic Engineering courses of the Universities of Messina, Reggio Calabria, and Catania.

COLLABORATIONS

Prof. Giovanni Volpe (University of Gothenburg, Sweden); Prof. Philip H. Jones (University College London, UK); Prof. Rosalba Saija (University of Messina, Italy); Prof. Giuseppe Strangi (Case Western Reserve University, Cleveland, USA); Dr. Andrea Camposeo (CNR-NANO, Pisa, Italy); Dr. Giorgio Volpe (University College London, UK); Prof. Vincenzo Amendola (University of Padua, Italy); Prof. Andrea C. Ferrari (University of Cambridge, UK); Prof. Gabriella Cipparrone (University of Calabria, Rende, Italy); Prof. Francesco Priolo (University of Catania, Italy); Prof. Antonio Sasso and Dr. Giuseppe Pesce (University Federico II, Naples, Italy); Dr. Pavel Zemanek (ISI-CAS, Brno, Czech Republik); Prof. Simon Hanna (University of Bristol, UK); Prof. Juan Jose Saenz (Donostia International Physics Center, San Sebastian, Spain).

MEMBERSHIP OF SCIENTIFIC SOCIETIES

I am an active member of OSA – The Optical Society, EPS – The European Physical Society, and APP – Accademia Peloritana dei Pericolanti. Within these societies, I serve as **Advisor for the “Messina OSA Student Chapter” (2011 - present)** and the **“Messina Young Minds Group” (2010 - present)**. I have also Chaired the **“Optical Cooling & Trapping” OSA Technical Group (2013-2015)**, promoting and sponsoring activities at several topical conferences.

SERVICE AND PROFESSIONAL ACTIVITIES (SELECTED)

- 2011 – **Advisor** of the "OSA Student Chapter Messina". Initiative promoted and sponsored by the Optical Society of America (OSA).
 2010 – **Advisor** of the EPS "Young Minds" group -Messina. Initiative promoted and sponsored by the European Physical Society (EPS).
 2013 – 2015 **Chair** of the Technical Group on "Optical Cooling & Trapping" of the Optical Society of America. (Activities on www.facebook.com/groups/OpticalCoolingTrappingOSA/)
 2014 – 2015 **Guest Editor** of **Optics Express (OSA)**, Feature Issue vol. 23, Issue 8 (2015) dedicated to "Optical Cooling & Trapping" (www.osapublishing.org/oe/abstract.cfm?uri=oe-23-8-9917).
 2014 – 2015 **Guest Editor** of **JOSA B (OSA)**, Feature Issue vol. 32, Issue 5 (2015) dedicated to "Optical Cooling & Trapping" (www.osapublishing.org/josab/virtual_issue.cfm?vid=289).
 2011-2012 **Guest Editor** of **Journal of Quantitative Spectroscopy & Radiative Transfer** (Elsevier), Special Issue vol. 113, Issue 18 (2012), dedicated to " Electromagnetic & Light Scattering XIII" (www.sciencedirect.com/science/journal/00224073/113/18).
 2011 **Guest Editor** of **AAPP | Atti dell'Accademia Peloritana dei Pericolanti**, vol. 89-S1 (2011), dedicated to " ELS-XIII Conference" (Open Access, ISSN: 03650359, EISSN:18251242).

ORGANIZATION OF SCIENTIFIC MEETINGS

- 2007 – **Organizer** of the local Workshop “Appunti di Fisica Teorica”, the yearly workshop is jointly organized by CNR and University of Messina and deals with all aspects of theoretical physics.
 2005 – **Committee Member** of the local yearly Seminar Series “Appunti di Fisica”, the seminars are jointly organized by CNR and University of Messina.
 5-9 March 2018 **Advisory Committee Member** of the “12th international conference series on Laser-light and Interactions with Particles” (LIP2018), College Station, Texas, USA.
 2-5 April 2017 **Committee Member** of “Optical Trapping Applications,” OSA Topical Meeting, San Diego, CA.
 22-26 April 2016 **Advisory Committee Member** of the “11th international conference series on Laser-light and Interactions with Particles” (LIP2016), Xian, China.

- 12-15 October 2015 **Local Organizer** of “2nd International Conference on Enhanced Spectroscopies”, ICES2015, Messina, Italy.
- 12-16 April 2015 **Committee member** of “Optical Trapping Applications,” OSA Topical Meeting, Vancouver, Canada.
- 26-30 September 2011 **Local Organizer** of “Electromagnetic and Light Scattering XIII”, ELS-XIII, Taormina, Italy.
- 13-14 March 2000 **Organizer** of the international Workshop “Career Opportunities in Academia and Industry”, Linacre College, University of Oxford, Oxford (UK).

INVITED TALKS

1. "Optical forces at the edge", New Frontiers in Plasmonics and Nano-Optics, Nanoplasm2018, Cetraro, Italy, 10-15 June 2018.
2. "Optical forces and applications", "Laser and Interactions with Particles 12", LIP2018, College Station, Texas, USA, March 5-9, 2018.
3. "Optical tweezers for materials", Discussions on Nano and Mesoscopic Optics, DINAMO2017, Siglufjordur, Iceland, May 14-19, 2017.
4. "Hybridization of Optical Forces", 7th International conference on metamaterials, photonic crystals and plasmonics, META2016, Malaga (Spain), 25-28 July 2016.
5. "Optical forces at the mesoscale" (Plenary Talk), New Frontiers in Plasmonics and Nano-Optics, Nanoplasm2016, Cetraro, Italy, 13-17 June 2016.
6. "Optical Trapping of Nanostructures: Role of shape and spectroscopy", Discussions on Nano & Mesoscopic Optics, Dinamo2015, El Chaltén, Patagonia. Argentina, April 8-12, 2015.
7. "Optical Trapping and SERS with Plasmonic Nanoparticles", 11th International Conference on Nanosciences & Nanotechnologies, Nanotextology2014, Thessaloniki, Greece, 8-12 Luglio 2014.
8. "Plasmon-enhanced optical manipulation and SERS with trapped metal nanoparticles", New Frontiers in Plasmonics and Nano-Optics, Nanoplasm2014, Cetraro, Italy, 16-20 Giugno 2014.
9. "Optical Trapping of Nanostructures Femtonewton Force Sensing and Ultra-sensitive Spectroscopy", Convegno: XCVIII Congresso Nazionale Società Italiana di Fisica, Napoli, 17-21 Sett. 2012.
10. "Optical Trapping of Nanostructures: Femtonewton Force Sensing and Ultra-Sensitive Spectroscopy", Convegno INTERNAZIONALE: "NanoSPain2012", Santander, Spain, 27 Feb-1 Mar 2012.
11. Femtonewton Force Sensing and Optical Trapping of Nanotubes and Graphene", International Workshop on Metrology, Standardization and Industrial Quality of Graphene and Nanotubes (MSIGN11), NT11 Satellite Workshop, University of Cambridge, Cambridge, UK, 10-16 July, 2011.
12. "Femtonewton force sensing and optical trapping of nanotubes and graphene", Optical Trapping and Optical Micromanipulation VII, SPIE Optics+Photonics, San Diego, USA, 1-5 Aug 2010.

REFEREE ACTIVITY

Journals: *Nature Nanotechnology*, *Nature Photonics*, *Nature Communications*, *Scientific Reports*, *Physical Review Letters*, *Physical Review A*, *Optics Letters*, *Optics Express*, *JOSA B*, *Nano Letters*, *ACS Nano*, *J. Phys Chem C*, *Langmuir*, *J. Quant. Spect. & Rad. Transf.*, *Nanoscale*, *New Journal of Physics*, *Nanotechnology*, *Journal of Optics*, *Journal of Optics A*, *Atti Accademia Peloritana Pericolanti*.

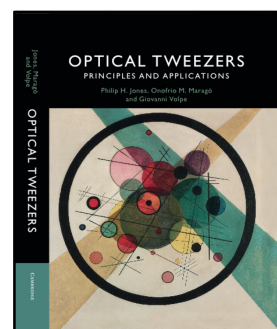
Grants: Department of Energy (USA), Czech Science Foundation (GA CR, Czech Republic), Swiss National Science Foundation (SNSF, Switzerland), Fondation pour la Recherche Medical (France), Ministero dell'istruzione, dell'università e della ricerca (Miur).

PUBLICATION AND CITATION STATISTICS (AT JANUARY 2018)

Years active: 1998 –
Publications: 85
Citations: 3171 (Google Scholar) – 2366 (Scopus) – 2212 (WoS)
H-index: 30 (Google Scholar) – 27 (Scopus) – 26 (WoS)

BOOKS

1. “Optical Tweezers: Principles and Applications” (568pp)
Philip H. Jones, **Onofrio M. Maragò** & Giovanni Volpe
Cambridge University Press,
December 2015.
ISBN 9781107051164

**JOURNAL ARTICLES (PEER-REVIEWED)**

1. Donato, M. G., Messina, E., Foti, A., Smart, T. J., Jones, P. H., Iatì, M. A., Saija, R., Gucciardi, P. G., **Maragò, O. M.** “Optical trapping and optical force positioning of two-dimensional materials” (2018) *Nanoscale* **10**, art.n. 1245.
2. Yang, Z., Moffa, M., Liu, Y., Li, H., Persano, L., Camposeo, A., Saija, R., Iatì, M. A., **Maragò, O. M.**, Pisignano, D., Nam, C.-Y., Zussman, E., Rafailovich, M. “Electrospun Conjugated Polymer/Fullerene Hybrid Fibers: Photoactive Blends, Conductivity through Tunneling-AFM, Light Scattering, and Perspective for Their Use in Bulk-Heterojunction Organic Solar Cells” (2018) *J. Phys. Chem. C*. **Article in press**.
3. Moffa, M., Camposeo, A., Fasano, V., Fazio, B., Iatì, M.A., **Maragò, O.M.**, Saija, R., Schröder, H.C., Müller, W.E. and Pisignano, D. “Biomimetic Amorphous Lasers through Light-Scattering Surfaces Assembled by Electrospun Fiber Templates” (2018) *Laser & Photonics Reviews* **12**, art. n. 1700224.
4. Simpson, S.H., Zemánek, P., **Maragò, O.M.**, Jones, P.H. and Hanna, S. “Optical binding of nanowires” (2017) *Nano Letters* **17**, pp.3485–3492.
5. Foti, A., D’Andrea, C., Toma, A., Fazio, B., Messina, E., **Maragò, O.M.**, Di Fabrizio, E., de La Chapelle, M.L. and Gucciardi, P.G. “Polarization Properties of the SERS Radiation Scattered by Linear Nanoantennas with Two Distinct Localized Plasmon Resonances” (2017) In “Nano-Optics: Principles Enabling Basic Research and Applications” (pp. 503-504). Springer, Dordrecht.
6. Persano, L., Moffa, M., Fasano, V., Portone, A., Romano, L., Fazio, B., Saija, R., Iatì, M.A., Camposeo, A., **Maragò, O.M.** and Pisignano, D. “Random optical media based on hybrid organic-inorganic nanowires: multiple scattering, field localization and light diffusion” (2017) In *Proc. of SPIE Vol. 10101*, pp. 1010103-1.
7. Iatì, M.A., Saija, R., **Maragò, O.M.** and Denti, P. “Ferdinando Borghese (26 May 1940–19 January 2017)” (2017) *Journal of Quantitative Spectroscopy and Radiative Transfer* **201**, pp.226-228.
8. Amendola, V., Pilot, R., Frascioni, M., **Maragò, O.M.**, Iatì, M.A. “Surface plasmon resonance in gold nanoparticles: a review” (2017) *Journal of Physics: Condensed Matter* **29**, 203002. (**Topical Review**)
9. Cacciola, A., Iatì, M.A., Saija, R., Borghese, F., Denti, P., **Maragò, O.M.**, Gucciardi, P.G. “Spectral shift between the near-field and far-field optoplasmonic response in gold nanospheres, nanoshells, homo- and hetero-dimers” (2017) *Journal of Quantitative Spectroscopy and Radiative Transfer* **195**, pp. 97–106.
10. Spadaro, D., Iatì, M.A., Perez-Pineiro, J., Vázquez-Vázquez, C., Correa-Duarte, M.A., Donato, M.G., Gucciardi, P.G., Saija, R., Strangi, G. and **Maragò, O.M.** “Optical Trapping of Plasmonic Mesocapsules: Enhanced Optical Forces and SERS” (2017) *The Journal of Physical Chemistry C* **121**, pp. 691–700.
11. Donato, M.G., Mazzulla, A., Pagliusi, P., Magazzù, A., Hernandez, R.J., Provenzano, C., Gucciardi, P.G., **Maragò, O.M.**, Cipparrone, G. “Light-induced rotations of chiral birefringent microparticles in optical tweezers” (2016) *Scientific Reports*, **6**, art. no. 31977.
12. Messina, E., Leone, N., Foti, A., Di Marco, G., Riccucci, C., Di Carlo, G., Di Maggio, F., Cassata, A., Gargano, L., D’Andrea, C., Fazio, B., **Maragò, O.M.**, Robba, B., Vasi, C., Ingo, G.M., Gucciardi, P.G. “Double-wall nanotubes and graphene nanoplatelets for hybrid conductive adhesives with enhanced thermal and electrical conductivity” (2016) *ACS Applied Materials and Interfaces*, **8** (35), pp. 23244-23259.
13. Irrera, A., Magazzù, A., Artoni, P., Simpson, S.H., Hanna, S., Jones, P.H., Priolo, F., Gucciardi, P.G., **Maragò, O.M.** “Photonic Torque Microscopy of the Nonconservative Force Field for Optically Trapped Silicon Nanowires” (2016) *Nano Letters*, **16** (7), pp. 4181-4188.

14. Fazio, B., D'Andrea, C., Foti, A., Messina, E., Irrera, A., Donato, M.G., Villari, V., Micali, N., **Maragò, O.M.**, Gucciardi, P.G. "SERS detection of Biomolecules at Physiological pH via aggregation of Gold Nanorods mediated by Optical Forces and Plasmonic Heating" (2016) *Scientific Reports*, **6**, art. no. 26952.
15. Camposeo, A., Spadaro, D., Magri, D., Moffa, M., Gucciardi, P.G., Persano, L., **Maragò, O.M.**, Pisignano, D. "Surface-enhanced Raman spectroscopy in 3D electrospun nanofiber mats coated with gold nanorods" (2016) *Analytical and Bioanalytical Chemistry*, **408** (5), pp. 1357-1364.
16. D'Andrea, C., Irrera, A., Fazio, B., Foti, A., Messina, E., **Maragò, O.M.**, Kessentini, S., Artoni, P., David, C., Gucciardi, P.G. "Red shifted spectral dependence of the SERS enhancement in a random array of gold nanoparticles covered with a silica shell: Extinction versus scattering" (2015) *Journal of Optics*, **17** (11), art. no. 114016, .
17. Magazzù, A., Spadaro, D., Donato, M.G., Sayed, R., Messina, E., D'Andrea, C., Foti, A., Fazio, B., Iatì, M.A., Irrera, A., Saija, R., Gucciardi, P.G., **Maragò, O.M.** "Optical tweezers: a non-destructive tool for soft and biomaterial investigations" (2015) *Rendiconti Lincei*, **26**, pp. 203-218.
18. Amendola, V., Saija, R., **Maragò, O.M.**, Iatì, M.A. "Superior plasmon absorption in iron-doped gold nanoparticles" (2015) *Nanoscale*, **7** (19), pp. 8782-8792.
19. Neves, A.A.R., Jones, P.H., Luo, L., **Maragò, O.M.** "Focus issue introduction: Optical cooling and trapping" (2015) *Optics Express*, **23** (8), pp. 9917-9923.
20. Volpe, G., Pesce, G., Volpe, G., **Maragò, O.M.**, Jones, P.H., Gigan, S., Sasso, A. "Step-by-step guide to the realization of advanced optical tweezers" (2015) *Journal of the Optical Society of America B: Optical Physics*, **32** (5), pp. B84-B98.
21. Spadaro, D., Iatì, M.A., Donato, M.G., Gucciardi, P.G., Saija, R., Cherlakola, A.R., Scaramuzza, S., Amendola, V., **Maragò, O.M.** "Scaling of optical forces on Au-PEG core-shell nanoparticles" (2015) *RSC Advances*, **5** (113), pp. 93139-93146.
22. Messina, E., Donato, M.G., Zimbone, M., Saija, R., Iatì, M.A., Calcagno, L., Fragalà, M.E., Compagnini, G., D'Andrea, C., Foti, A., Gucciardi, P.G., **Maragò, O.M.** "Optical trapping of silver nanoplatelets" (2015) *Optics Express*, **23** (7), pp. 8720-8730.
23. Neves, A.A.R., Jones, P.H., Luo, L., **Maragò, O.M.** "Optical cooling and trapping: introduction" (2015) *Journal of the Optical Society of America B: Optical Physics*, **32** (5), pp. OCT1-OCT5.
24. Foti, A., D'Andrea, C., Messina, E., Irrera, A., **Maragò, O.M.**, Fazio, B., Gucciardi, P.G. "On the SERS depolarization ratio" (2015) *Nanospectroscopy*, **1**(1), pp. 26–32.
25. Donato, M.G., Hernandez, J., Mazzulla, A., Provenzano, C., Saija, R., Sayed, R., Vasi, S., Magazzù, A., Pagliusi, P., Bartolino, R., Gucciardi, P.G., **Maragò, O.M.**, Cipparrone, G. "Polarization-dependent optomechanics mediated by chiral microresonators" (2014) *Nature Communications*, **5**, art. no. 3656.
26. Kessentini, S., Barchiesi, D., D'Andrea, C., Toma, A., Guillot, N., Di Fabrizio, E., Fazio, B., **Maragò, O.M.**, Gucciardi, P.G., Lamy De La Chapelle, M. "Gold dimer nanoantenna with slanted gap for tunable LSPR and improved SERS" (2014) *Journal of Physical Chemistry C*, **118** (6), pp. 3209-3219.
27. Simpson, S.H., Jones, P.H., **Maragò, O.M.**, Hanna, S., Miles, M.J. "Optical binding of nanowires in counterpropagating beams" (2013) *Proceedings of SPIE - The International Society for Optical Engineering*, **8810**, art. no. 881026.
28. Sayed, R., Kalantarifard, F., Elahi, P., Ilday, F.O., Volpe, G., **Maragò, O.M.** "Intracavity optical trapping with ytterbium doped fiber" (2013) *Proceedings of SPIE - The International Society for Optical Engineering*, **8810**, art. no. 88102S.
29. **Maragò, O.M.**, Jones, P.H., Gucciardi, P.G., Volpe, G., Ferrari, A.C. "Optical trapping and manipulation of nanostructures" (2013) *Nature Nanotechnology*, **8** (11), pp. 807-819. **Highly Cited Paper in WoS.**
30. D'Andrea, C., Bochterle, J., Toma, A., Huck, C., Neubrech, F., Messina, E., Fazio, B., **Maragò, O.M.**, Di Fabrizio, E., Lamy De La Chapelle, M., Gucciardi, P.G., Pucci, A. "Optical nanoantennas for multiband surface-enhanced infrared and raman spectroscopy" (2013) *ACS Nano*, **7** (4), pp. 3522-3531.

31. Skelton, S.E., Sergides, M., Saija, R., Iatì, M.A., **Maragò, O.M.**, Jones, P.H. "Trapping volume control in optical tweezers using cylindrical vector beams" (2013) *Optics Letters*, 38 (1), pp. 28-30.
32. Foti, A., D'Andrea, C., Bonaccorso, F., Lanza, M., Calogero, G., Messina, E., **Maragò, O.M.**, Fazio, B., Gucciardi, P.G. "A Shape-Engineered Surface-Enhanced Raman Scattering Optical Fiber Sensor Working from the Visible to the Near-Infrared" (2013) *Plasmonics*, 8 (1), pp. 13-23.
33. Borghese, F., Saija, R., Gucciardi, P.G., Antonia Iatì, M., **Maragò, O.M.** "Electromagnetic and light scattering XIII" (2012) *Journal of Quantitative Spectroscopy and Radiative Transfer*, 113 (18), pp. 2277-2279.
34. Skelton, S.E., Sergides, M., Memoli, G., **Maragò, O.M.**, Jones, P.H. "Optical squeezing of microbubbles: Ray optics and Mie scattering calculations" (2012) *Proceedings of SPIE - The International Society for Optical Engineering*, 8458, art. no. 84581F.
35. Sergides, M., Skelton, S.E., Karczewska, E., Thorneycroft, K., **Maragò, O.M.**, Jones, P.H. "Optically bound particle structures in evanescent wave traps" (2012) *Proceedings of SPIE - The International Society for Optical Engineering*, 8458, art. no. 84583C.
36. Skelton, S.E., Sergides, M., Patel, R., Karczewska, E., **Maragò, O.M.**, Jones, P.H. "Evanescent wave optical trapping and transport of micro- and nanoparticles on tapered optical fibers" (2012) *Journal of Quantitative Spectroscopy and Radiative Transfer*, 113 (18), pp. 2512-2520.
37. Messina, E., D'Urso, L., Fazio, E., Satriano, C., Donato, M.G., D'Andrea, C., **Maragò, O.M.**, Gucciardi, P.G., Compagnini, G., Neri, F. "Tuning the structural and optical properties of gold/silver nano-alloys prepared by laser ablation in liquids for optical limiting, ultra-sensitive spectroscopy, and optical trapping" (2012) *Journal of Quantitative Spectroscopy and Radiative Transfer*, 113 (18), pp. 2490-2498.
38. Skelton, S.E., Sergides, M., Donato, M.G., Vasi, S., Sayed, R., Gucciardi, P.G., Saija, R., Iatì, M.A., **Maragò, O.M.**, Jones, P.H. "Shaping of the trapping volume in optical tweezers using cylindrical vector beams" (2012) *Proceedings of SPIE - The International Society for Optical Engineering*, 8458, art. no. 84582Z, .
39. David, C., D'Andrea, C., Lancelot, E., Bochterle, J., Guillot, N., Fazio, B., **Maragò, O.M.**, Sutton, A., Charnaux, N., Neubrech, F., Pucci, A., Gucciardi, P.G., De La Chapelle, M.L. "Raman and IR spectroscopy of manganese superoxide dismutase, a pathology biomarker" (2012) *Vibrational Spectroscopy*, 62, pp. 50-58.
40. Donato, M.G., Vasi, S., Sayed, R., Jones, P.H., Bonaccorso, F., Ferrari, A.C., Gucciardi, P.G., **Maragò, O.M.** "Optical trapping of nanotubes with cylindrical vector beams" (2012) *Optics Letters*, 37 (16), pp. 3381-3383.
41. Skelton, S.E., Sergides, M., Memoli, G., **Maragò, O.M.**, Jones, P.H. "Trapping and deformation of microbubbles in a dual-beam fibre-optic trap" (2012) *Journal of Optics*, 14 (7), art. no. 075706, .
42. Donato, M.G., Monaca, M.A., Faggio, G., De Stefano, L.D., Jones, P.H., Gucciardi, P.G., **Maragò, O.M.** "Optical trapping of porous silicon nanoparticles" (2011) *Nanotechnology*, 22 (50), art. no. 505704, .
43. Fazio, B., D'Andrea, C., Villari, V., Micali, N., **Maragò, O.M.**, Calogero, G., Gucciardi, P.G. "Surface enhanced Raman spectroscopy of biomolecules in buffer solution" (2011) *AAPP Atti della Accademia Peloritana dei Pericolanti, Classe di Scienze Fisiche, Matematiche e Naturali*, 89 (SUPPL. 1), .
44. D'Andrea, C., Fazio, B., Irrera, A., Artoni, P., **Maragò, O.M.**, Calogero, G., Gucciardi, P.G. "Spectral dependence of the amplification factor in surface enhanced Raman scattering" (2011) *AAPP Atti della Accademia Peloritana dei Pericolanti, Classe di Scienze Fisiche, Matematiche e Naturali*, 89 (SUPPL. 1), .
45. Skelton, S.E., Sergides, M., Patel, R., Karczewska, E., **Maragò, O.M.**, Jones, P.H. "Optical trapping and optical binding using cylindrical vector beams" (2011) *AAPP Atti della Accademia Peloritana dei Pericolanti, Classe di Scienze Fisiche, Matematiche e Naturali*, 89 (SUPPL. 1), .
46. Borghese, F., Denti, P., Gucciardi, P.G., Iatì, M.A., **Maragò, O.M.**, Saija, R. "Preface: Introducing ELS XIII" (2011) *AAPP Atti della Accademia Peloritana dei Pericolanti, Classe di Scienze Fisiche, Matematiche e Naturali*, 89 (SUPPL. 1).

47. Messina, E., D'Urso, L., Satriano, C., Fazio, E., Donato, M.G., Fazio, B., D'Andrea, C., **Maragò, O.M.**, Gucciardi, P.G., Compagnini, G., Neri, F. "Tuning the structural and optical properties of gold/silver nanoalloys prepared by laser ablation in liquids for ultra-sensitive spectroscopy and optical trapping" (2011) AAPP Atti della Accademia Peloritana dei Pericolanti, Classe di Scienze Fisiche, Matematiche e Naturali, 89 (SUPPL. 1).
48. Vasi, S., Monaca, M.A., Donato, M.G., Bonaccorso, F., Privitera, G., Trushkevych, O., Calogero, G., Fazio, B., Irrera, A., Iatì, M.A., Saija, R., Denti, P., Borghese, F., Jones, P.H., Ferrari, A.C., Gucciardi, P.G., **Maragò, O.M.** "Optical trapping of carbon nanotubes and graphene" (2011) AAPP Atti della Accademia Peloritana dei Pericolanti, Classe di Scienze Fisiche, Matematiche e Naturali, 89 (SUPPL. 1).
49. Irrera, A., Artoni, P., Saija, R., Gucciardi, P.G., Iatì, M.A., Borghese, F., Denti, P., Iacona, F., Priolo, F., **Maragò, O.M.** "Size-scaling in optical trapping of silicon nanowires" (2011) Nano Letters, 11 (11), pp. 4879-4884.
50. Ridolfo, A., Saija, R., Savasta, S., Jones, P.H., Iatì, M.A., **Maragò, O.M.** "Fano-doppler laser cooling of hybrid nanostructures" (2011) ACS Nano, 5 (9), pp. 7354-7361.
51. Messina, E., Cavallaro, E., Cacciola, A., Saija, R., Borghese, F., Denti, P., Fazio, B., D'Andrea, C., Gucciardi, P.G., Iatì, M.A., Meneghetti, M., Compagnini, G., Amendola, V., **Maragò, O.M.** "Manipulation and raman spectroscopy with optically trapped metal nanoparticles obtained by pulsed laser ablation in liquids" (2011) Journal of Physical Chemistry C, 115 (12), pp. 5115-5122.
52. Messina, E., Cavallaro, E., Cacciola, A., Iatì, M.A., Gucciardi, P.G., Borghese, F., Denti, P., Saija, R., Compagnini, G., Meneghetti, M., Amendola, V., **Maragò, O.M.** "Plasmon-enhanced optical trapping of gold nanoaggregates with selected optical properties" (2011) ACS Nano, 5 (2), pp. 905-913.
53. **Maragò, O.M.**, Bonaccorso, F., Saija, R., Privitera, G., Gucciardi, P.G., Iatì, M.A., Calogero, G., Jones, P.H., Borghese, F., Denti, P., Nicolosi, V., Ferrari, A.C. "Brownian motion of graphene" (2010) ACS Nano, 4 (12), pp. 7515-7523.
54. **Maragò, O.M.**, Saija, R., Borghese, F., Denti, P., Jones, P.H., Messina, E., Compagnini, G., Amendola, V., Meneghetti, M., Iatì, M.A., Gucciardi, P.G. "Plasmon-enhanced optical trapping of metal nanoparticles: Force calculations and light-driven rotations of nanoaggregates" (2010) Proceedings of SPIE - The International Society for Optical Engineering, 7762, art. no. 77622Z.
55. Calogero, G., Bonaccorso, F., **Maragò, O.M.**, Gucciardi, P.G., Di Marco, G. "Single wall carbon nanotubes deposited on stainless steel sheet substrates as novel counter electrodes for ruthenium polypyridine based dye sensitized solar cells" (2010) Dalton Transactions, 39 (11), pp. 2903-2909.
56. Neves, A.A.R., Camposeo, A., Pagliara, S., Saija, R., Borghese, F., Denti, P., Iatì, M.A., Cingolani, R., **Maragò, O.M.**, Pisignano, D. "Rotational dynamics of optically trapped nanofibers" (2010) Optics Express, 18 (2), pp. 822-830.
57. Rashid, M., **Maragò, O.M.**, Jones, P.H. "Focusing of high order cylindrical vector beams" (2009) Journal of Optics A: Pure and Applied Optics, 11 (6), art. no. 065204.
58. Jones, P.H., Palmisano, F., Bonaccorso, F., Gucciardi, P.G., Calogero, G., Ferrari, A.C., **Maragò, O.M.** "Rotation detection in light-driven nanorotors" (2009) ACS Nano, 3 (10), pp. 3077-3084.
59. Jones, P.H., Rashid, M., Makita, M., **Maragò, O.M.** "Sagnac interferometer method for synthesis of fractional polarization vortices" (2009) Optics Letters, 34 (17), pp. 2560-2562.
60. Saija, R., Denti, P., Borghese, F., **Maragò, O.M.**, Iatì, M.A. "Optical trapping calculations for metal nanoparticles. Comparison with experimental data for Au and Ag spheres." (2009) Optics Express, 17 (12), pp. 10231-10241.
61. **Maragò, O.M.**, Jones, P.H., Bonaccorso, F., Scardaci, V., Gucciardi, P.G., Rozhin, A.G., Ferrari, A.C. "Femtonewton force sensing with optically trapped nanotubes" (2008) Nano Letters, 8 (10), pp. 3211-3216.
62. **Maragò, O.M.**, Gucciardi, P.G., Bonaccorso, F., Calogero, G., Scardaci, V., Rozhin, A.G., Ferrari, A.C., Jones, P.H., Saija, R., Borghese, F., Denti, P., Iatì, M.A. "Optical trapping of carbon nanotubes" (2008) Physica E: Low-Dimensional Systems and Nanostructures, 40 (7), pp. 2347-2351.

63. Borghese, F., Denti, P., Saija, R., Iatì, M.A., **Maragò, O.M.** "Radiation torque and force on optically trapped linear nanostructures" (2008) *Physical Review Letters*, 100 (16), art. no. 163903.
64. Bonaccorso, F., Bongiorno, C., Fazio, B., Gucciardi, P.G., **Maragò, O.M.**, Morone, A., Spinella, C. "Pulsed laser deposition of multiwalled carbon nanotubes thin films" (2007) *Applied Surface Science*, 254 (4), pp. 1260-1263.
65. Bonaccorso, F., Calogero, G., Di Marco, G., **Maragò, O.M.**, Gucciardi, P.G., Glorgianni, U., Channon, K., Sabatino, G. "Fabrication of gold tips by chemical etching in aqua regia" (2007) *Review of Scientific Instruments*, 78 (10), art. no. 103702.
66. Jones, P.H., **Maragò, O.M.**, Stride, E.P.J. "Parametrization of trapping forces on microbubbles in scanning optical tweezers" (2007) *Journal of Optics A: Pure and Applied Optics*, 9 (8), art. no. S23, .
67. Camposeo, A., **Maragò, O.M.**, Fazio, B., Klöter, B., Meschede, D., Rasbach, U., Weber, C., Arimondo, E. "Resist-assisted atom lithography with group III elements" (2006) *Applied Physics B: Lasers and Optics*, 85 (4), pp. 487-491.
68. Fazio, B., **Maragò, O.M.**, Musso, M. "Magnetic induced dichroism and frequency stabilization of violet-blue diode lasers on gallium atomic transitions" (2005) *Journal of the Optical Society of America B: Optical Physics*, 22 (6), pp. 1325-1329.
69. Fazio, B., **Maragò, O.M.**, Arimondo, E., Spinella, C., Bongiorno, C., D'Arrigo, G. "Towards fabrication of ordered gallium nanostructures by laser manipulation of neutral atoms: Study of self-assembling phenomena" (2004) *Superlattices and Microstructures*, 36 (1-3), pp. 219-226.
70. **Maragò, O.M.**, Fazio, B., Gucciardi, P.G., Arimondo, E. "Atomic gallium laser spectroscopy with violet/blue diode lasers" (2003) *Applied Physics B: Lasers and Optics*, 77 (8), pp. 809-815.
71. Hechenblaikner, G., Morgan, S.A., Hodby, E., **Maragò, O.M.**, Foot, C.J. "Calculation of mode coupling for quadrupole excitations in a Bose-Einstein condensate" (2002) *Physical Review A - Atomic, Molecular, and Optical Physics*, 65 (3 B).
72. Hechenblaikner, G., Hodby, E., Hopkins, S.A., **Maragò, O.M.**, Foot, C.J. "Direct observation of irrotational flow and evidence of superfluidity in a rotating Bose-Einstein condensate" (2002) *Physical Review Letters*, 88 (7), pp. 704061-704064.
73. **Maragò, O.M.**, Hechenblaikner, G., Hodby, E., Hopkins, S.A., Foot, C.J. "The moment of inertia and the scissors mode of a Bose-condensed gas" (2002) *Journal of Physics Condensed Matter*, 14 (3), pp. 343-354.
74. Hodby, E., Hechenblaikner, G., Hopkins, S.A., **Maragò, O.M.**, Foot, C.J. "Vortex nucleation in Bose-Einstein condensates in an oblate, purely magnetic potential" (2002) *Physical Review Letters*, 88 (1), pp. 104051-104054.
75. **Maragò, O.M.**, Hechenblaikner, G., Hodby, E., Foot, C. "Temperature dependence of damping and frequency shifts of the scissors mode of a trapped Bose-Einstein condensate" (2001) *Physical Review Letters*, 86 (18), pp. 3938-3941.
76. Hodby, E., **Maragò, O.M.**, Hechenblaikner, G., Foot, C.J. "Experimental observation of Beliaev coupling in a Bose-Einstein condensate" (2001) *Physical Review Letters*, 86 (11), pp. 2196-2199.
77. Hodby, E., Hechenblaikner, G., **Maragò, O.M.**, Arlt, J., Hopkins, S., Foot, C.J. "Bose-Einstein condensation in a stiff TOP trap with adjustable geometry" (2000) *Journal of Physics B: Atomic, Molecular and Optical Physics*, 33 (19), pp. 4087-4094.
78. Hechenblaikner, G., **Maragò, O.M.**, Hodby, E., Arlt, J., Hopkins, S., Foot, C.J. "Observation of harmonic generation and nonlinear coupling in the collective dynamics of a Bose-Einstein condensate" (2000) *Physical Review Letters*, 85 (4), pp. 692-695.
79. **Maragò, O.M.**, Hopkins, S.A., Arlt, J., Hodby, E., Hechenblaikner, G., Foot, C.J. "Observation of the Scissors Mode and Evidence for Superfluidity of a Trapped Bose-Einstein Condensed Gas" (2000) *Physical Review Letters*, 84 (10), pp. 2056-2059.

80. Hopkins, S.A., Webster, S., Arlt, J., Bance, P., Cornish, S., **Maragò, O.M.**, Foot, C.J. “Measurement of elastic cross section for cold cesium collisions” (2000) *Physical Review A - Atomic, Molecular, and Optical Physics*, 61 (3), pp. 327071-327074.
81. **Maragò, O.M.**, Hopkins, S.A., Arlt, J., Hodby, E., Hechenblaikner, G., Foot, C.J. “Scissors mode and superfluidity of a trapped Bose-Einstein condensed gas” (2000) in *BOSE-EINSTEIN CONDENSATES AND ATOM LASERS*, pp. 285-289. Edited by: Martellucci, S.; Chester, A.N.; Aspect, A.; Inguscio, M.
82. Arlt, J., **Maragò, O.M.**, Hodby, E., Hopkins, S.A., Hechenblaikner, G., Webster, S., Foot, C.J. “Bose-Einstein condensation in a rotating anisotropic TOP trap” (1999) *Journal of Physics B: Atomic, Molecular and Optical Physics*, 32 (24), pp. 5861-5869.
83. Arlt, J.J., **Maragò, O.M.**, Webster, S., Hopkins, S., Foot, C.J. “A pyramidal magneto-optical trap as a source of slow atoms” (1998) *Optics Communications*, 157 (1-6), pp. 303-309.
84. **Maragò, O.M.**, Ciampini, D., Fuso, F., Arimondo, E., Gabbanini, C., Manson, S.T. “Photoionization cross sections for excited laser-cooled cesium atoms” (1998) *Physical Review A - Atomic, Molecular, and Optical Physics*, 57 (6).
85. Fuso, F., **Maragò, O.M.**, Ciampini, D., Arimondo, E., Gabbanini, C., Manson, S.T. “Photoionisation of laser-cooled cesium 6 P-2(3/2) atoms” (1998) *RESONANCE IONIZATION SPECTROSCOPY Book Series: AIP CONFERENCE PROCEEDINGS*, 454, pp. 27-32. Edited by: Vickerman, JC; Lyon, I; Lockyer, NP; et al.