

Dichiarazione sostitutiva atto notorietà

(art. 47 DPR 445 DEL 28.12.2000)

ai sensi dell'art. 15, comma 1, lett. c), D.Lgs 33/2013 e

ai sensi dell'art. 20 comma 5, del D.Lgs, n, 39 del D. Lgs. 8 aprile 2013 n. 39

Il/La sottoscritto/a GIUSEPPE MARACCI CF. NTNGPP87C06H501W
nato a ROMA Prov. (RM) il 06/03/87

consapevole delle sanzioni penali, nel caso di dichiarazione non veritiere, di formazione o uso di atti falsi, richiamate dall'art. 76 del DPR n. 445 del 28.12.2000

DICHIARA

ai sensi dell'art. 15, comma 1, lett. c) del D.Lgs 33/2013 e ai sensi dell'art. 20, comma 5 del D.Lgs 39/2013

in relazione al conferimento dell'incarico di : SVOLGERE UN SWARCO

a) di non svolgere incarichi e di non essere titolare di cariche in Enti di diritto privato regolati o finanziati dalla Pubblica Amministrazione conferente;

ovvero

di svolgere i seguenti incarichi o di essere titolare delle seguenti cariche in Enti di diritto privato regolati o finanziati dalla Pubblica Amministrazione conferente:

- 1) _____
- 2) _____
- 3) _____

b) di non svolgere attività professionali;

ovvero

di svolgere le seguenti attività professionali:

- 1) _____
- 2) _____
- 3) _____

c) di non trovarsi in alcuna delle situazioni di incompatibilità / inconferibilità di cui al D.Lgs n. 39/2013. A tal fine in caso di incarichi pluriennali, l'interessato dovrà presentare annualmente una dichiarazione che dia atto dell'insussistenza di cause di incompatibilità/inconferibilità.

Dichiara inoltre:

- di essere informato, ai sensi e per gli effetti di cui all'art. 13 del D.Lgs 196/2003, che i dati personali raccolti saranno trattati, anche con strumenti informatici, esclusivamente nell'ambito del provvedimento per il quale la dichiarazione è resa;
- di essere informato che, ai sensi dell'art. 15, comma 1, lett. C) del D.Lgs 33/2013, la presente dichiarazione sarà pubblicata sul sito web dell'amministrazione in apposita sezione di Amministrazione Trasparente

Firenze, 16/04/18

[Firma]
IL /LA DICHIARANTE (firma leggibile per esteso)

Giuseppe Antonacci

Address: Via della Pelliccia 5, 00153 Rome, Italy

Phone: +39 333 4627568 E-Mail: giuseppe.antonacci@iit.it

Research & Work Experience

- Sep 2015-present **Italian Institute of Technology (IIT)**, Centre for Life Nano Science (Rome) – *Research PI*
Working at the joint lab between IIT and a startup, CrestOptics srl.
- Research and development of advanced imaging devices for biomedical applications
 - Developed a confocal Brillouin microscope for all-optical 3D mechanical imaging of biosystems
 - Optical engineering consulting at CrestOptics srl
 - Designing state-of-the-art optical imaging techniques to provide early diagnosis of Alzheimer
 - Developed an apodized Fabry-Pèrot spectrometer of unprecedented spectral contrast
 - Generation of non-diffracting light beams using SLMs for rapid 3D imaging of turbid samples
 - Laser Safety Officer of the Centre for Life Nano Science, IIT
 - Lecturing Optics to undergraduate students
 - Lens and optical design using Zemax ray tracing software
 - Budget management for the acquisition of new scientific instruments
- Jan-Aug 2015 **Imperial College London**, Blackett Laboratory (London) – *Research Associate*
Working as a post-doctoral researcher to further progress my PhD research project.
- Implemented a confocal Brillouin microscope for non-invasive 3D mechanical imaging
 - Established collaborations with several bioengineering research groups to perform diagnoses of glaucoma and atherosclerosis using our high-resolution Brillouin microscope
 - Designed a state-of-the-art endoscope based on Brillouin spectroscopy for early diagnosis of the atherosclerosis disease
 - Laboratory demonstrator in the MSc Optics and Photonics, and Applied Optics School
 - Supervisor of MSc and UROP students
- Sep-Oct 2013 **Harvard Medical School**, Wellman Center for Photomedicine (Cambridge) – *Visiting Researcher*
- Developed a high-contrast, sub-GHz VIPA spectrometer for rapid biomechanical imaging
 - Established a research collaboration with Imperial College London
- 2012 - 2017 **TEFAF Maastricht** and **London Masterpiece** International Art Fairs – *Executive Assistant*
- Supported the logistic and administration of Paolo Antonacci Antichità's gallery stand
 - Marketing and communication

Education

- 2011 - 2015 **Imperial College London** (London) - **PhD Imaging and Spectroscopy**
- o Thesis: *Brillouin Scattering Microscopy for Mechanical Imaging*
 - Developed a non-contact, sub-cellular resolution confocal Brillouin microscope to enable non-invasive, label-free three-dimensional biomechanical imaging
 - Characterized the spectral broadening affecting the Brillouin light scattering measurements due to high numerical aperture (NA) lenses
 - Designed a spectrometer of ~ 60 dB spectral contrast to enable biomechanical imaging of highly scattering samples (e.g. atherosclerotic plaques, cancer tissues).
 - Acquired 3D mechanical images of single cells and coronary arteries for the first time
 - Developed LabView and Matlab codes to control lab instruments and process data
 - Established collaborations with Harvard Medical School, UCL and Queen Mary University
- 2009 - 2010 **Imperial College London** (London) - **MSc Optics and Photonics**
Final Grade: *Distinction*
- o Final Project: *IR Spectroscopic Imaging for Cancer Diagnosis*
Developed a mid-infrared spectroscopic imaging system that performs cancer diagnosis in unstained tissues. The low-cost device used a blackbody light source and bespoke IR filters to quantify the spectral absorbance of cytoplasmic (amide) and nuclear (phosphodiester) components
 - o System Design Project: *A non-contact optical fibre displacement sensor*
Developed an optical displacement sensor using a bunch of multi-mode optical fibres
 - o Self-Study Project: *The development of the Photographic Objective*
The optical aberrations affecting the photographic objectives were investigated using Zemax
- 2005- 2008 **Sapienza University of Rome** (Rome) - **BSc Physics**
Final Grade: *105/110*
- o 3rd Year Thesis: *Bose-Einstein condensation in trapped gasses*

In collaboration with Prof. Inguscio, President of the Italian CNR. A Bose-Einstein condensate is a state of matter where bosons collapse into the lowest quantum state of an external potential.

Honors & Awards

Jan	2018	<i>Joint Lab CLNS-CrestOptics</i> (€350,000), PI of the <i>Brillouin Light Microscopy</i> (BLM) project
Feb	2017	<i>EU Horizon 2020 COST Action CA16124 "BioBrillouin"</i> , Management Committee Member
Nov	2014	<i>EPSRC Pathways to Impact Award</i> (€100,000), Imperial College London, London
Sept	2013	<i>Santander Mobility Award</i> (€2,000), Harvard Medical School, Cambridge
June	2011	<i>EPSRC Doctoral Training Account</i> , Imperial College London, London
May	2011	<i>Marie Curie ITN Fellowship</i> , CERN, Genève (declined in order to pursue my PhD studies)

IT Skills

Microsoft Office Package (ECDL license), **C and C++** (courses and exams at Sapienza), **ZEMAX** (courses and exams at Imperial), **LabView**, **Matlab**, **ImageJ**, **MicroManager**, **LaTex**, **Mathematica**, **Adobe Photoshop & Illustrator**

Languages

Italian Mother tongue, **English** Proficient (IELTS Certificate), **Spanish** Intermediate

Main Publications

- Leonetti, M, [...], Antonacci, G., Scattering-assisted super-localization microscopy, *Science Advances* (under review)
- Antonacci, G. *et al.* Altered stress granule biomechanics by ALS protein FUS revealed by background-deflection Brillouin microscopy, (under review)
- Antonacci, G. *et al.* Demonstration of self-healing and scattering resilience of acoustic Bessel beams, *Physical Review Applied* (under review)
- Di Domenico, G., [...], Antonacci, G., Cancellation of Bessel beam side lobes for high-contrast light sheet microscopy, *Light: Science & Applications* (under review)
- Antonacci, G. *et al.* Diffraction-free light droplets for axially-resolved volume imaging, *Scientific Reports* **7**, 41598 (2017)
- Antonacci, G. Dark-field Brillouin microscopy, *Optics Letters*, **42**(7), 1432-1335 (2017)
- Di Domenico, G *et al.* Miniaturized eletro-optic axicon lenses for Bessel-pixel image projection, *Applied Optics*, **56**(10), 2908-2911 (2017)
- Antonacci, G *et al.* Biomechanics of subcellular structures by non-invasive Brillouin microscopy, *Scientific Reports*, **6**, 3721 (2016)
- Antonacci, G *et al.* Breaking the contrast limit in Fabry-Perot spectrometers, *Physical Review Applied*, **6**, 054020 (2016)
- Antonacci, G *et al.* Quantification of plaque stiffness by Brillouin Microscopy in experimental thin cap fibroatheroma, *J. Roy. Soc. Interface*, **12**(112), 20150843 (2015)
- Antonacci, G *et al.* Elastic suppression in Brillouin imaging, *Applied Physics Letters*, **107**(6), 061102 (2015)
- Antonacci, G, Foreman M.R., Paterson, C., Török, P., Spectral broadening in Brillouin imaging, *Applied Physics Letters* **103**(22), 221105 (2013)
- Bersani FS, *et al.* Deep transcranial magnetic stimulation as a treatment for phychiatric disorders: A comprensive review. *European Phychiatry* **28**(1), 30-39 (2013)
- Amrania, H. *et al.*, Digistain: a digital staining instrument for histopathology. *Optics Express* **20**, 7290–9 (2012)

Main Conferences & Invited Talks

Mar	2018	<i>International Conference on BioMedical Photonics</i> , Montpellier (invited speaker)
Jul	2017	<i>8th International Discussion Meeting on Relaxations in Complex Systems</i> , Wisla (invited speaker)
May	2017	<i>CLEO Conference on Lasers and Electro-Optics</i> , San Jose (presented papers)
Feb	2014-18	<i>Photonics West Bios</i> , San Francisco (presented paper)
Jul	2016	<i>Photonics 2016</i> , Berlin (invited speaker and moderator)
Mar	2013-17	<i>Focus on Microscopy</i> (presented papers)
Mar	2015	<i>Optics in Cardiology</i> , Rotterdam (presented poster)
Sept	2014	<i>Photonics14</i> , London (presented paper)
Aug	2014	<i>Summer Post 2014</i> , The Post Internazionale, Rome (invited speaker)
May	2013	<i>European Conferences in Biomedical Optics</i> (ECBO), Munich (presented paper)
Oct	2010	11 th OWLS, <i>Biophotonics Week</i> , Quebec City (presented MSc project results)