

**CV of Francesco Dell'Olio,
Assistant Professor at *Politecnico di Bari*, Optoelectronics Laboratory, Italy.**

Name: Francesco Dell'Olio
Date of Birth: April 17, 1981
Nationality: Italian

Summary

Francesco Dell'Olio received, in 2005 and 2010, the master degree (cum laude) in electronic engineering and the Ph.D. degree in Information & Communication Technologies both from the Bari Polytechnic, Italy. Since 2015 he is assistant professor at *Politecnico di Bari*.

Research interests of Dr. Dell'Olio include the fields of integrated optical sensors, especially angular velocity and biosensors, silicon photonics and InP-based photonic integrated circuits. Dr. Dell'Olio is the co-author of 2 books published by Springer and World Scientific, 30 papers published in international refereed journals (average IF close to 3), and more than 50 papers published in conference proceedings. His papers were cited about 850 times and his h-index is 16.

Since 2006, Dr. Dell'Olio has given more than 20 contributed talks on his research activities during important international meetings such as the IEEE Photonics Conference.

Dr. Dell'Olio serves as reviewer for several high-IF journals such as Optics Express, AOP, J. of Lightwave Technology, App. Optics, JOSA B, IEEE Photonics J., Sensors, Optics Letters, and Sens. & Act. B.

Dr. Dell'Olio has been involved in several research project on miniaturized optical gyroscopes (founded by the European Space Agency, ESA), optical links for data transfer on board of satellites (founded by the Italian Space Agency and Thales Alenia Space), sensor systems for harsh environments monitoring (founded by SOGIN), and electromagnetic field photonic sensors (founded by the Italian Ministry of Education, Universities and Research).

During his PhD, Dr. Dell'Olio spent several months at ESA - ESTEC, Noordwijk, The Netherlands and attended some English summer schools in Cambridge, UK.

Education

- PhD in Information & Communication Technologies, April 2010, *Politecnico di Bari*, Italy. Advisors: prof. C. Ciminelli and prof. V. M. N. Passaro. Doctoral thesis "Optical angular velocity sensors and related read-out systems for new generation gyroscopes". Co-funded by the European Space Agency.
- Master Degree in Electronic Engineering, March 2005, *Politecnico di Bari*, Italy. Advisors: prof. D. De Venuto and prof. L. Reyneri. Thesis at the Hardware Lab, *Politecnico di Torino*.

Current position

Since December 2015, Assistant Professor at *Politecnico di Bari*, Italy.

Collaboration contracts

- University of Cagliari, Department of electrical & electronic engineering: Design of a novel optoelectronic E-field sensor to be fabricated by Selex SI, Rome.
- CIRP (Consortium of the Apulian Universities): Feasibility study of a sensor system for harsh environment monitoring (project funded by SOGIN).
- Bari Polytechnic, Department of electrical & electronic engineering: Design of photonic electromagnetic field sensors operating up to 300 GHz (project funded by Italian Ministry of the Environment).

Current research interests

- Miniaturized optoelectronic gyroscopes for space applications. Principal research interest.
- Photonic/plasmonic platforms for label-free sensing of biomarkers.
- Graphene-based microphotonic devices for beamforming in phased array antennas for EO satellites.
- Ultra-high Q/V hybrid photonic/plasmonic cavities for optical trapping.

Scientific visits and collaborations

- Several short-term (one to three months) visits to the European Space Agency - European Space Research and Technology Centre.

- Scientific collaboration with the University of St. Andrews, Microphotonics and Photonic Crystals Group and the University of York, Photonics Group in the field of high Q/V photonic/plasmonic microcavities
- Scientific collaboration with the Fraunhofer Institute for Telecommunications, Heinrich-Hertz-Institute, Smart Photonics, and the Eindhoven University of Technology (group. Of prof. M. K. Smit) in the field of high Q-factor optical ring resonators.

Funded research projects

- 2004-2006: INTERLINK (IIO4C01CDM) project “Design, fabrication, and characterization of innovative photonic devices in silicon-on-insulator technology”. Funded by Italian Ministry of Education & Research. Researcher.
- 2007-2009: NPI Cooperation agreement between the European Space Agency and the Bari Polytechnic n. 20199/06/NL/PA. Researcher.
- 2010-2012: “Advanced Radar Processing Architecture – ARPA”. Funded by the Italian Space Agency under the call DC-PRZ-2007-001. Researcher.
- 2010-2012: “Development of technologies for second-generation TILE”. Funded by the Italian Space Agency under the call DC-PRZ-2007-001. Researcher.
- 2010-2012 PRIN 2008 project “New system for the near-field characterization and the dynamic control of radiating systems based on a Light Parallel Array Sensor”. Funded by Italian Ministry of Education & Research. Researcher.
- 2011-2013: ESA project Micro Optical Angular Velocity Sensor - MiOS Contract n. 4000102311/10/NL/PA in the framework of the ESA TRP program. Researcher.
- 2011-2013: ESA project Photonic Crystal Micro-cavities for On-board Satellite Applications - MICAD Contract n. 5401000410/0/0/0/0 in the framework of the invitation to tender "Small Space Procurements", appendix 3 to RFQ 2000000562.
- 2012-2015: MASSIME – Innovative mechatronic security systems for railway, space, and robotics applications”. PON02_00576_3333585. Funded by Italian Ministry of Education & Research. Researcher.
- 2012-2015: LAMRECOR – Advanced logistics for people and goods: mathematical models and experiments on new protocols for mail delivery. PON01_01864. Funded by Italian Ministry of Education & Research. Researcher.
- 2012-2015: Apulia Space. PON03_01243. Funded by Italian Ministry of Education & Research. Researcher.

Reviewing activities

Reviewer for several high-IF journals such as Optics Express, Advances in Optics and Photonics, J. of Lightwave Technology, Applied Optics, JOSA B, IEEE Photonics J., Sensors, Optics Letters, and Sens. & Act. B.

International conferences

- May 25-27 2006, 11th International Workshop on Computational Electronics, Wien.
- July 16-19 2006, 11th International Meeting on Chemical Sensors, Brescia, Italy(*).
- November 14 2006, COMSOL Users Conference 2006, Milan (*).
- June 26-27 2007, 2nd IEEE International Workshop on Advances in Sensors and Interfaces, Bari, Italy (*).
- June 25-28 2008, First Mediterranean Photonics Conference, Ischia, Naples (*).
- November 26-27 2008, Photonica 2008 (Hi.Tech.Expo 2008), Milan.
- January 11-17 2009, International Congress of Ultrasonics, Santiago of Chile(*).
- March 01-06 2009, Caneus 2009 Workshop, NASA Ames Center, Moffett Field, CA, USA.
- June 03-05 2009, DGao/SIOF Joint Meeting, Brescia, Italy (*).
- January 28 2010, ESA Networking/Partnering Day, Noordwijk (*).
- September 5-8 2011, 11th IEEE International Conference on Numerical Simulation of Optoelectronic Devices, Rome (*).
- September 26-28 2011, 4th EOS Topical Meeting on Optical Microsystems (OμS'11), Capri, Naples (*).
- July 2-5 2012, International Conference on Transparent Optical Networks (ICTON 2012), University of Warwick, Coventry, UK (*).
- August 27 - 30 2012, 24th International Conference on Indium Phosphide and Related Materials (IPRM 2012), University of California Santa Barbara, Santa Barbara, USA (*).
- September 23 - 27 2012, IEEE Photonics Conference, 2012, Burlingame, USA (*).
- October 09 - 12 2012, International Conference on Space Optics, Ajaccio, France (*).

- June 23-27 2013, International Conference on Transparent Optical Networks (ICTON 2012), University of Warwick, Cartagena, Spain (*).
- September 12-14 2013, 5th EOS Topical Meeting on Optical Microsystems (OμS'13), Capri, Naples (*).
- 6-9 Maggio 2014, 3rd Mediterranean Photonics Conference, Trani, Italy (*).
- 6-10 Luglio 2014, International Conference on Transparent Optical Networks (ICTON 2014), Graz, Austria (*).
- 6-10 Luglio 2015, International Conference on Transparent Optical Networks (ICTON 2015), Budapest, Hungary (*).

(*) Oral presentation.

Teaching experience

Bachelor level: Digital electronics (2014), Electronics (2015).

Master level: Microelectronic technologies (2013). Lab of Optoelectronics (2013, 2014). Microsystems technology (2014).

Supervision of students

Co-tutor of the master degree thesis of approximately 10 students.

Lab Experience

Very good experience in the characterization of microphotonic devices and fiber components. Good skills in the field of electronic measurements.

Language skills

Italian – mother tongue.

English – fluent.

French – good level.

Bibliometric indicators

Citations > 850

H-index = 16

List of publications: <http://www.scopus.com/authid/detail.uri?authorId=23033785200>