CURRICULUM VITAE

Claudio Oton

I. PERSONAL DATA

Last name: *Otón Nieto*
First name: *Claudio José*
Date of birth: *22 December 1978*
Citizenship: *Spanish*

Contact address:
Scuola Superiore Sant'Anna
Institute of Mechanical Intelligence
Via G. Moruzzi 1
56124 Pisa, ITALY
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II. EDUCATION

2005	**PhD title, University of La Laguna** (Spain). Doctorate program: Physics and Informatics. Date: 3 June 2005.
2001 – 2005	**Predoctoral scholarships** in **University of La Laguna**, Spain (2003-2005) and **University of Trento**, Italy (2001-2003)
1997 – 2000	**Degree in Physics** (4-year title eq. to MSc) at University of La Laguna, Spain.

III. POST-DOCTORAL CAREER

2022 – Now	**Associate Professor** (Professore Associato) in **Institute of Mechanical Intelligence**, **Scuola Superiore Sant'Anna**, Pisa, Italy
2019 – 2022	**Assistant Professor Tenure Track** (Ricercatore RTD-B) in **Institute of Mechanical Intelligence**, **Scuola Superiore Sant'Anna**, Pisa, Italy
2012 – 2019	**Assistant Professor** (Ricercatore RTD-A) in TeCIP Institute, **Scuola Superiore Sant'Anna**, Pisa, Italy
2009 – 2012	**Senior Research Fellow** in Nanophotonics Technology Center, **Universidad Politecnica de Valencia**, Spain.
2005 – 2009	**Postdoctoral Research Fellow** in Optoelectronics Research Centre, **University of Southampton**, UK. Funded with **Marie Curie Intraeuropean Fellowship**, and EU FP6 **project LANCER**.

IV. FIELDS OF RESEARCH AND EXPERTISE

- **2012-Now:** optical fiber sensors, silicon photonics, integrated optical sensors
- **2009-2012:** silicon photonics, nonlinear optics, interferometry
- **2005-2009:** silicon-based integrated optics, Er-doped glass waveguide lasers and amplifiers
- **2001-2005:** optical properties of porous silicon single and multilayers, applications for optical devices and chemical sensors

V. BIBLIOMETRIC RECORD

- h-index: **28** (Scopus*) **31** (Google Scholar†)
- Number of publications: **154** (Scopus*) **190** (Google Scholar†)
- Number of journal publications (excluding conference proceedings): **76** (Scopus*)
- Number of citations: **2800** (Scopus*) **3500** (Google Scholar†)
- ORCID identifier: 0000-0003-3831-7559
- Researcher ID: C-2387-2008

VI. MERITS AND AWARDS

- **Habilitation** for **Full Professor** (Abilitazione Scientifica Nazionale Prima Fascia) in area:
  - 02/B1 Fisica Sperimentale della Materia (Experimental Matter Physics), from November 2020.
- **Habilitation** for **Associate Professor** (Abilitazione Scientifica Nazionale Seconda Fascia) in areas:
  - 09/E3 Ingegneria Elettronica (Electronic Engineering), from May 2019.
  - 09/F2 Telecomunicazioni (Telecommunications Engineering), from September 2019.
  - 02/B1 Fisica Sperimentale della Materia (Experimental Matter Physics), from April 2017.
- **Marie Curie Intraeuropean Fellowship** (EU-FP6, 2007)
- **Outstanding Doctorate Award** (awarded to the top 10% PhD theses), University of La Laguna, Spain, 2006.
- **Physics Degree Award** (awarded to the **top-rated physics student of the 1996-2000 year**) University of La Laguna, Spain, 2001.
- **Project reviewer** for Dutch Research Council (NWO), Polish National Science Centre (NCN), and Latvian Central Finance and Contracting Agency (CFLA).

VII. EDITORIAL/SCIENTIFIC COMMITTEES

- **Associate Editor** of scientific journal **Optics and Laser Technology** (Elsevier, Impact factor 4.93)
- **Editorial Board member** of scientific journal **Sensors** (MDPI, Impact factor 3.57).
- **Technical committee member** of international conferences OSA Optical Sensors and Sensing Congress (2020, 2021 and 2022), and IEEE International Instrumentation & Measurement Technology Conference (I2MTC 2020, 2021).
- **Reviewer** of several scientific journals (Opt. Express, Opt. Lett., Optica, Appl. Phys. Lett., Phys. Rev. B, J. Appl. Phys., Opt. Mat., *etc*).

VIII. RESEARCH PROJECTS AND CONTRACTS

Research projects and contracts with **coordination roles**:

1. Research Contract *"Innovative solutions in fiber-optic sensing"* funded by Infibra Technologies-Brembo, 2021-2023. Duration 19 months. Budget: 409k€. Role: Coordinator.
2. Research Project Proof-of-Concept FORCE: *"Fiber-optic sensor with ultra-high acquisition rate"*, funded by Italian Ministry of Economic Development and Baker Hughes, 2021-2022. Duration 12 months. Total project budget 60k€. Role: Coordinator.

* https://www.scopus.com/authid/detail.uri?authorId=6603893345
† https://scholar.google.it/citations?user=atCDWYwAAAAJ

3. Research Project Agenzia Spaziale Italiana: ARTEMIDE: "*Analizzatore Fotonico Real-Time per il Monitoraggio Distribuito per l'Aerospazio*" (Real-time photonic analyzer for distributed monitoring for Aerospace). 2020-2022. Duration 24 months. Budget: 374k€. Role: Coordinator.
4. Scuola Sant'Anna – General Electric Joint Laboratory "*Turbomachinery sensing technology lab"* in Florence (2016-2019). Budget: 507k€. Duration: 36 months. Role: Operative coordinator.
5. EU FP7 Project IRIS "Integrated Reconfigurable Silicon Photonic Switch" (2015-2017). Total budget: 5.8M€, 614k€ institution. Duration: 36 months + 12 extension. Role: Research unit coordinator and WP leader.
6. Research contract "Development of compliance technology to EU FCM Regulation: Biophotonic sensing of food packaging contamination (Year 2)" funded by Korean Institute of Science and Technology Europe (2017-2018). Budget: 36k€. Role: Coordinator.
7. Research contract "Development of compliance technology to EU FCM Regulation: Biophotonic sensing of food packaging contamination (Year 1)" funded by Korean Institute of Science and Technology Europe (2016-2017). Budget: 52k€. Role: Coordinator.
8. Universidad Politecnica de Valencia research project: "Optical switching in silicon photonic integrated circuits" (2011-2012). Duration: 12 months. Role: Coordinator.
9. Marie Curie FP6 Intraeuropean Fellowship "Nanocluster-sensitized optical waveguide" (2007-2009). Duration: 2 years. Role: Coordinator (Fellow).

Research projects and contracts with **participation roles**:

1. Project Composensing "Integrazione di sensori diagnostici attivi/semiattivi/passivi in compositi avanzati", funded by Italian Ministry of Defense. 2021-2023. Role: Researcher.
2. "Nuovi sensori Real Time per la determinazione di contaminazioni chimiche e microbiologiche in matrici ambientali e biomedicali (Sensor)" Research project funded by Regione Toscana (POR-FESR 2014-2020). Duration 24 months. (November 2018 – Now). Role: Researcher.
3. Department of Excellence "Robotics & AI" funded by the Italian Ministry of University and Research (2018-2022). Role: Researcher.
4. Project SAMARCANDA "Cancer biomarkers from salivary MiRNA for population screening: optoelectronic interferometer for future biological sensor" funded by PNR-SSSA, (2022-2023). Budget 70k€. Role: researcher.
5. "Smart Turbine Technology (STECH)" Research project funded by Regione Toscana (FAR-FAS 2014). Duration: 24 months + 6-month extension. (June 2017 – Dec 2019) Role: Researcher.
6. "Access Center for Photonics Innovation Solutions and Technology Support (ACTPHAST)" EU Project funded by FP7 (grant agreement 619205) Duration: 5 years (2013 – 2017). Role: Researcher (Scout).
7. "Architetture di reti e nodi ottici per la trasmissione ad alta capacità (ARNO)" Research project funded by Regione Toscana PAR FAS 2007-2013 (Progetti strategici). Duration: 3 years (2011-2014) Role: Researcher.
8. "Silicon-based nanophotonic devices (SINADEC)" national research project funded by Ministerio de Ciencia e Innovacion, Spain. (2009-2012) Role: Researcher
9. "Light Amplifiers with Nanoclusters and Erbium (LANCER)" EU Research Project funded by FP6. (2006 – 2009). Role: Researcher
10. "Nanocluster-sensitized optical waveguide amplifiers and lasers" Research project funded by EPSRC (Engineering and Physical Sciences Research Council), UK. (2005 – 2009). Role: Researcher
11. "Fabrication and characterization of nanomaterials for filters and optical sensors" Research project funded by Gobierno Autónomo de Canarias, Spain, (2005-2007). Role: Researcher.

12. “Surface passivation of porous silicon nanostructures and applications for anti-reflective coatings and optical filters in the visible-infrared range” Research project funded by the Spanish Ministry of Education and Science (2003-2005). Role: Researcher
13. “Characterization and development of low-cost anti-reflection coatings for photovoltaic cells based on porous silicon” Research project funded by Gobierno Autonomo de Canarias, Spain. (2004-2006). Role: Researcher.
14. “Multiparametric sensor with porous silicon” Research project funded by Provincia Autonoma di Trento, Italy. (2002-2004). Role: Researcher.
15. “Multiparametric Sensor for Air Pollutants with Porous Silicon Optical Microcavities” Research project funded by Istituto Nazionale per la Fisica della Materia (INFM). (2001-2003). Role: Researcher

IX. PRESENTATIONS IN CONFERENCES/WORKSHOPS

The list below shows the conference/workshop contributions as presenting author.

1. Invited presentation: “Miniaturized photonic sensors with micro-interferometers”, SPIE Photonics West International Conference, San Francisco, USA (to be held in January 2023).
2. Invited presentation: “Interferometers on chip for sensing applications”, European Optical Society Annual Meeting, Porto, Portugal (September 2022).
3. Contributed presentation: “Interferometric Sensors on Chip with Improved Phase Generated Carrier Demodulation” IEEE Photonics Conference 2020 (September 2020).
4. Contributed presentation: “Fast FBG Interrogation with Active Sagnac Interferometer Using Off-the-shelf Fiber Components” OSA Sensors and Sensing International Conference (STh3G-6). Optical Society of America (2020).
5. Invited presentation: “Micro-interferometers on chip for sensing applications”, OSA Sensors and Sensing Congress, (Optical Society of America) San Jose (CA) USA (June 2019).
6. Contributed presentation: “Silicon Photonic Chip for Static and Dynamic Wavelength Division Multiplexed FBG Sensors Interrogation”, 26th International Conference on Optical Fiber Sensors, Lausanne, Switzerland, September 2018.
7. Invited presentation: “Silicon Photonics for Matrix Switching Applications: Ingredients and Recipes” OSA Integrated Photonics Research, Silicon and Nanophotonics (pp. ITu3B-6). Optical Society of America; Vancouver, Canada, July 2016.
8. Contributed presentation: “Thermal tuning double ring resonator filters: experimental analysis”, IEEE Group IV Photonics, Shanghai, China, August 2016.
9. Contributed presentation: “Adiabatic bends in silicon multimode waveguides”, IEEE Group IV Photonics, Shanghai, China, August 2016.
10. Contributed presentation: “Silicon waveguide metrology thorugh interferometry”, IEEE Group IV Photonics, Shanghai, China, August 2016.
11. Contributed presentation: “Silicon Photonic Toolkit for Integrated Switching Applications” Fotonica AEIT Italian Conference, Rome, Italy, 6-8 June 2016.
12. Invited presentation: “Optical fiber sensors: Overview and recent advances” Annual Workshop of the IEEE Photonics Benelux Chapter, (Mons, Belgium), May 2015.
13. Contributed presentation: “Ultrafast all-optical logic gates with silicon nanocrystal-based slot waveguides” 7th IEEE International Conference on Group IV Photonics, Beijing, China, 1-3 September 2010.

14. Contributed presentation: “High Q microring demultiplexer filter for 60 GHz microwave photonics applications” 7th IEEE International Conference on Group IV Photonics, Beijing, China, 1-3 September 2010.
15. Contributed presentation**:** *“Er^{3+} excited state absorption and the low fraction of nanocluster-excitable Er^{3+} in SiO_x”* Mat. Res. Soc. Fall Meeting, (Boston, USA, 27 Nov- 1 Dec 2006).
16. Contributed presentation: "Er3+ excited state absorption in silicon nanocluster-sensitised active materials", Quantum Physics of Nanostructures, (Stratford-upon-Avon, UK, September 2006)
17. Contributed presentation: *“Optical gain in dye-impregnated oxidized porous silicon waveguides”*, Porous Semiconductors Science and Technology Conference, (Barcelona, Spain, March 2006).
18. Contributed presentation: “Porous silicon-based Notch filters and waveguides” SPIE Microtechnologies for the new millenium, Seville, Spain, 9-11 May 2005.
19. Contributed presentation: *“Scattering rings in porous silicon” Porous Semiconductors Science and Technology Conference*, (Cullera, Valencia, Spain, March 2004).
20. Contributed presentation: *“Role of microstructure and layer thickness in porous silicon gas sensors” Porous Semiconductors Science and Technology Conference*, (Cullera, Valencia, Spain March 2004).
21. Contributed presentation: *“Scattering rings in optically anisotropic porous silicon”*, *IV Silicon Workshop*, Genova, Italy, February 2003.
22. Contributed presentation: *“Multiparametric porous silicon gas sensors with improved quality and sensitivity”*, *Porous Semiconductors Science and Technology* Conference (Tenerife, Spain, March 2002).
23. Contributed presentation: *“Light propagation in porous silicon one-dimensional complex systems”*, *Porous Semiconductors Science and Tech. Conference* (Tenerife, Spain, March 2002).
24. Contributed presentation: *“Time-resolved light propagation at the band-edge of 1D Fibonacci quasicrystals”*, *III Silicon Workshop*, Genova, Italy, February 2002.

X. PATENTS

1. "Distortion-corrected phase generated carrier demodulation method using multitone mixing" Inventors: Y. Marin, P. Velha, C. J. Oton. Asignee: Scuola Superiore Sant'Anna. PCT WO2022028904A1. Filing date: August 2020.
2. "High sampling rate optical fiber sensor" Inventor: C. J. Oton. Asignee: Scuola Superiore Sant'Anna. PCT WO2021161235A1. Filing date: February 2020.
3. “Optical switching apparatus and methods” WO2019029805A1 (PCT). Filing date August 2017. Inventors: F. Testa, C. J. Oton. Asignee: Ericsson.

XI. TEACHING/SUPERVISION

1. Coordinator of “*Laboratory of Photonic Sensing and Components”* course, 2022/23. 4-credit course part of the teaching program of PhD in Emerging Digital Technologies, Scuola Superiore Sant’Anna. Duration: 40 hours. Teaching time: 20 hours.
2. Teaching assistant of “*Optical Fiber Sensing systems”* course, 2022/23. 3-credit course part of the teaching program of PhD in Emerging Digital Technologies, Scuola Superiore Sant’Anna. Duration: 30 hours. Teaching time: 10 hours.

3. Coordinator of "*Laboratory of Photonic Sensing and Components"* course, 2021/22. 4-credit course part of the teaching program of PhD in Emerging Digital Technologies, Scuola Superiore Sant'Anna. Duration: 40 hours. Teaching time: 20 hours.
4. Teaching assistant of "*Optical Fiber Sensing systems"* course, 2021/22. 3-credit course part of the teaching program of PhD in Emerging Digital Technologies, Scuola Superiore Sant'Anna. Duration: 30 hours. Teaching time: 10 hours.
5. Seasonal School Photons-@ 2021/22, Scuola Superiore Sant'Anna "Photonic Technologies for Sensing Applications" coordinated by F. Di Pasquale. January 2022. Teaching time: 10 hours.
6. Coordinator of *Laboratory of Photonic Sensing and Components* course, 2020/21. 4-credit course part of the teaching program of PhD in Emerging Digital Technologies, Scuola Superiore Sant'Anna. Duration: 40 hours. Teaching time: 20 hours.
7. Teaching assistant of "*Optical fiber sensing systems"* course, 2020/21. 3-credit course part of the teaching program of PhD in Emerging Digital Technologies, Scuola Superiore Sant'Anna. Duration: 30 hours. Teaching time: 10 hours.
8. Seasonal School Photons-@ 2020/21, Scuola Superiore Sant'Anna "Photonic Technologies for Sensing Applications" coordinated by F. Di Pasquale. October 2020. Teaching time: 10 hours.
9. Coordinator of *Laboratory of Photonic Sensing and Components* course, 2019/20. 4-credit course part of the teaching program of PhD in Emerging Digital Technologies, Scuola Superiore Sant'Anna. Duration: 40 hours. Teaching time: 20 hours.
10. Teaching assistant of "*Optical fiber sensing systems"* course, 2019/20. 3-credit course part of the teaching program of PhD in Emerging Digital Technologies, Scuola Superiore Sant'Anna. Duration: 30 hours. Teaching time: 10 hours.
11. Coordinator of *Laboratory of Photonic Sensing and Components* course, 2017/18. 4-credit course part of the teaching program of PhD in Emerging Digital Technologies, Scuola Superiore Sant'Anna. Duration: 40 hours. Teaching time: 20 hours.
12. Teaching assistant of "*Optical fiber sensing systems"* course, 2017/18. 3-credit course part of the teaching program of PhD in Emerging Digital Technologies, Scuola Superiore Sant'Anna. Duration: 30 hours. Teaching time: 10 hours.
13. Coordinator of *Laboratory of Photonic Amplification and Components* course, 2016/17. 4-credit course part of the teaching program of PhD in Emerging Digital Technologies, Scuola Superiore Sant'Anna. Duration: 40 hours. Teaching time: 20 hours.
14. Teaching assistant of *Optical Amplification and Sensing* course, 2016/17. 3-credit course part of the teaching program of PhD in Emerging Digital Technologies, Scuola Superiore Sant'Anna. Duration: 30 hours. Teaching time: 10 hours.
15. Coordinator of *Laboratory of Photonic Amplification and Components* course, 2015/16. 4-credit course part of the teaching program of PhD in Emerging Digital Technologies, Scuola Superiore Sant'Anna. Duration: 40 hours. Teaching time: 20 hours.
16. Teaching assistant of *Optical Amplification and Sensing* course, 2015/16. 3-credit course part of the teaching program of PhD in Emerging Digital Technologies, Scuola Superiore Sant'Anna. Duration: 30 hours. Teaching time: 10 hours.
17. Coordinator of *Laboratory of Photonic Amplification and Components Part I* course, 2014/15. 4-credit course part of the teaching program of PhD in Emerging Digital Technologies, Scuola Superiore Sant'Anna. Duration: 40 hours. Teaching time: 20 hours.
18. Coordinator of *Laboratory of Photonic Amplification and Components Part II* course, 2014/15. 2-credit course part of the teaching program of PhD in Emerging Digital Technologies, Scuola Superiore Sant'Anna. Duration: 20 hours. Teaching time: 10 hours.
19. Teaching assistant of *Optical Amplification and Sensing* course, 2014/15. 3-credit course part of the teaching program of PhD in Emerging Digital Technologies, Scuola Superiore Sant'Anna. Duration: 30 hours. Teaching time: 10 hours.

20. Coordinator of *Laboratory of Photonic Amplification and Components Part I* course, 2013/14. 4-credit course part of the teaching program of PhD in Emerging Digital Technologies, Scuola Superiore Sant'Anna. Duration: 40 hours. Teaching time: 40 hours.
21. Coordinator of *Laboratory of Photonic Amplification and Components Part II* course, 2013/14. 2-credit course part of the teaching program of PhD in Emerging Digital Technologies, Scuola Superiore Sant'Anna. Duration: 20 hours. Teaching time: 20 hours.
22. Teaching assistant of *Optical Amplification and Sensing* course, 2013/14. 3-credit course part of the teaching program of PhD in Emerging Digital Technologies, Scuola Superiore Sant'Anna. Duration: 30 hours. Teaching time: 10 hours.
23. Coordinator of *Laboratory of Photonic Amplification and Components Part I* course, 2012/13. 4-credit course part of the teaching program of PhD in Emerging Digital Technologies, Scuola Superiore Sant'Anna. Duration: 40 hours. Teaching time: 40 hours.
24. Coordinator of *Laboratory of Photonic Amplification and Components Part II* course, 2012/13. 2-credit course part of the teaching program of PhD in Emerging Digital Technologies, Scuola Superiore Sant'Anna. Duration: 20 hours. Teaching time: 20 hours.
25. Teaching assistant of *Optical Amplification and Sensing* course, 2012/13. 3-credit course part of the teaching program of PhD in Emerging Digital Technologies, Scuola Superiore Sant'Anna. Duration: 30 hours. Teaching time: 10 hours.
26. Coordinator/Teaching Assistant in 2 courses within Erasmus Mundus Joint Master Degree program PIXNET (Photonic Integrated Circuits, Sensors and Networks), active from 2018 to 2022. The courses coincide with previously mentioned courses in the PhD program of Scuola Superiore Sant'Anna.
27. Coordinator/Teaching assistant in 2 courses within Erasmus Mundus courses program Mapnet (Masters on Photonic Networks Engineering) active from Oct 2010 to Sept. 2015. The courses coincide with all the previously mentioned courses in the PhD program of Scuola Superiore Sant'Anna.
28. Module coordinator "PIC characterization" and tutor in course "Integrated Circuit Design, Fabrication and Packaging" organized by Scuola Superiore Sant'Anna and Inphotec. Teaching time: 2h, tutoring time: ~10h. September 2016.
29. Module coordinator "PIC characterization" and tutor in course "Integrated Circuit Design, Fabrication and Packaging" organized by Scuola Superiore Sant'Anna and Inphotec. Teaching time: 2h, tutoring time: ~10h. May 2017.
30. Module coordinator "Photonic Devices", Smart Solutions Smart Communities Second Level Master, 2013.
31. Problem class leader in course *Electromagnetism* and *Classical Mechanics*, (2007-2008) Department of Physics and Astronomy, University of Southampton, UK.
32. Supervision of 5 **PhD Students (2 during last 3 years)** and 6 **Master students (3 during last 3 years)**.

XII. INSTITUTIONAL ROLES

1. Member of the commission for "Concorso di Ammissione Allievi Ordinari" in Engineering, Scuola Superiore Sant'Anna, 2021.
2. Member of the commission for "Concorso di Ammissione Allievi Ordinari" in Engineering, Scuola Superiore Sant'Anna, 2020.
3. Member of the commission Master PIXNET Final Examination, Scuola Superiore Sant'Anna, September 2021.
4. Member of the commission Master PIXNET Final Examination, Scuola Superiore Sant'Anna, September 2020.

5. Member of the PhD Commission of Davide Bazzanella, University of Trento, Italy, May 2022.
6. Member of the PhD Commission of Oscar Bonilla, University Carlos III of Madrid, Spain, June 2020.
7. Preposto alla sicurezza, Institute of Mechanical Intelligence and TeCIP Institute.

XIII. THIRD MISSION

1. Coordination of laboratory "Fibre ottiche che sentono", BRIGHT, Notte dei Ricercatori, Scuola Superiore Sant'Anna, September 2022. Hands-on laboratory for children and adults explaining our research activities on fiber-optic sensing.
2. Coordination of laboratory "Sentendo con la luce", BRIGHT, Notte dei Ricercatori, Scuola Superiore Sant'Anna, September 2021. Hands-on laboratory for children and adults explaining our research activities on fiber-optic sensing.
3. Toscana Inventors Day 2021. Presentation of 2 patented ideas to an audience of local potential industrial partners.
4. Dissemination video of project ARTEMIDE, explaining the objectives of the project to the general public, published in the official website of Scuola Superiore Sant'Anna.
5. Industrial course: "Introduction to Optical Fiber Sensors" delivered to the company General Electric. Teaching time: 4h. April 2017.
6. Jotto Fair "La ricerca incontra le imprese", presentazione alle imprese "Sensori fotonici in fibra ottica e integrati su chip", Scuola Superiore Sant'Anna, September 2017.

XIV. LANGUAGES

- **English**: fluent (4-year residence in UK)
- **Italian**: fluent (8-year residence in Italy)
- **Spanish**: mother tongue
- **French**: basic level

XV. SELECTED PUBLICATIONS

A selection of 12 publications is included below. The selection has considered the most representative papers of the different research topics of the candidate during his scientific career, and is in reverse chronological order. **A full publication list is available in the following link:** https://www.scopus.com/authid/detail.uri?authorId=6603893345**.**

1. Elaskar, J., Luda, M., Tozzetti, L., Codnia, J., **Oton, C. J**. "FPGA based high speed optical fiber sensor based on multitone mixing interferometry", IEEE Trans. Instrumentation and Measurement, **71** p.7003011 (2022).
2. Y. Marin, P. Velha, and **C. J. Oton**, "Distortion-corrected phase demodulation using phase-generated carrier with multitone mixing" Optics Express, **28** (24), pp.36849-36861 (2020).
3. **C. J. Oton**, L. Tozzetti, and F. Di Pasquale, "High-Speed FBG Interrogation with Electro-Optically Tunable Sagnac Loops" Journal of Lightwave Technology **38** (16) p. 4513 (2020).
4. P. Pintus, M. Hofbauer, C.L. Manganelli, M. Fournier, S. Gundavarapu, O. Lemonnier, F. Gambini, L. Adelmini, C. Meinhart, C. Kopp, F. Testa, H. Zimmerman, and **C. J. Oton** "PWM-Driven Thermally Tunable Silicon Microring Resonators: Design, Fabrication, and Characterization" Laser & Photonics Reviews, **13** (9), p.1800275 (2019).

5. C. L. Manganelli, P. Pintus, F. Gambini, D. Fowler, M. Fournier, S. Faralli, C. Kopp, **C.J. Oton**, *'Large-FSR Thermally Tunable Double-Ring Filters for WDM Applications in Silicon Photonics'* IEEE Photonics Journal, **9** (1), p. 7840003 (2017).

6. **C. J. Oton**, *"Long-working-distance grating coupler for integrated optical devices"* IEEE Photonics Journal **8** (1) 2700208 (2016).

7. **C. J. Oton**, C. Manganelli, F. Bontempi, M. Fournier, D. Fowler, and C. Kopp, *"Silicon photonic waveguide metrology using Mach-Zehnder interferometers"* Optics Express **24** (6) 6265-6270 (2016).

8. F. Testa, **C. J. Oton**, Kopp, C., Lee, J.M., Ortuño, R., Enne, R., et al, "Design and implementation of an integrated reconfigurable silicon photonics switch matrix in IRIS project" IEEE Journal of Selected Topics in Quantum Electronics **22** (6) 155 (2016).

9. J. Matres, G. C. Ballesteros, P. Gautier, J. M. Fédéli, J. Martí, **C. J. Oton**, *"High nonlinear figure-of-merit amorphous silicon waveguides",* Optics Express **21** (4) 3932-3940 (2013).

10. A. Z. Subramanian, **C. J. Oton**, D. P. Shepherd, and J. S. Wilkinson, *"Erbium-Doped Waveguide Laser in Tantalum Pentoxide"* IEEE Photonics Technology Letters, **22** (21) pp. 1571-1573 (2010).

11. **C. J. Oton**, W. H. Loh, A. J. Kenyon, "Er^{3+} excited state absorption and the low fraction of nanocluster-excitable Er^{3+} in SiOx", Applied Physics Letters **89** (3) 031116 p. 1-3, (2006).

12. Dal Negro, L., **Oton, C.J.**, Gaburro, Z., Pavesi, L., Johnson, P., Lagendijk, A., Righini, R., Colocci, M., Wiersma, D.S. 'Light Transport through the Band-Edge States of Fibonacci Quasicrystals' Physical Review Letters, **90**, 5, p. 55501 (2003).

Pisa, 7 December 2022.

Dr. Claudio Oton