

PERSONAL INFORMATION

Eva Arianna Aurelia POGNA

Researcher unique identifier: **ORCID:** [REDACTED]; **Scopus Author ID:** [REDACTED];
Web of Science ResearcherID: [REDACTED]; **Scholar:** [Eva Pogna](#)

URL for web site [REDACTED]

WORK EXPERIENCE**Current position**

2020 – now **Researcher**, Institute of Photonics and Nanotechnologies, [CNR-IFN](#), Milan, IT

Previous positions

2018 – 2020 **Fixed-term Researcher**, group of *Dr. Miriam Vitiello*, [CNR-NANO](#), Pisa, IT

2017 – 2018 **Junior Postdoc**, group of *Prof. Giulio Cerullo*, [Politecnico di Milano](#), Milan, IT

Feb.– Oct. 2013 **Research fellow**, group of *Prof. Tullio Scopigno*, [Sapienza Università di Roma](#), Rome, IT

EDUCATION AND TRAINING

13/03/2017 **Ph.D. in Physics** *cum laude (with honors)*
Physics Department, [Politecnico di Milano](#), Milan, IT
Thesis title: “*Ultrafast spectroscopy of two-dimensional semiconductors*”.
Supervisor: *Prof. Giulio Cerullo*

28/01/2013 **M. Sc. in Physics**, *110/110 cum laude (with honors)*
Physics Department, [Sapienza Università degli Studi di Roma](#), Rome, IT
Thesis title: “*Broadband Picosecond Photoacoustics in Amorphous Pharmaceuticals*”.
Advisor: *Prof. Tullio Scopigno*

FUNDINGS & ACCEPTED RESEARCH PROPOSALS

- **ERC-2024 StG** “*Taming radiative heat emission with anisotropic and time-varying media (TREAT)*” “Next Generation EU, €1.5 M contract number 101162914 – **Principal Investigator**
- **PRIN 2022- Settore PE3** “*Terahertz polaritons unveiled by near-field nanoscopy (TRAPNE)*” from Italian MUR- €205 k contract number 2022L3KF4S – **Principal investigator**
- **CNR-Short-Term mobility Programme 2022 and 2023** “*Ultrafast THz nanoscopy of topological insulators at University of Regensburg*, CNR-Dipartimento scienze fisiche e tecnologie della materia (DSFTM) – **Principal Investigator**
- “**Centro Nazionale per la Mobilità Sostenibile - CNMS**”- **Spoke 14** - Next Generation EU – **Team member** from 27/04/2023
- **ERC 2018 CoG - SPRINT** from Oct. 2018 to Oct. 2021 – **Team member**;
- **European Graphene Flagship, WP8 (CP-CSA, Core1)** from Nov. 2013 to Oct. 2018 – **Team member**;

Scientific proposals for beam time in large scale facilities:

- **European Synchrotron Radiation Facility – ESRF**, Grenoble, France – **8 proposals fully founded**, 5 of them as **Principal investigator**
- **Free-electron Laser Facility – FERMI**, Trieste, Italy – **1 proposal fully founded** (12-R1 4084).

RESEARCH ACHIEVEMENTS

Since 2013, **39 papers** in **peer reviewed journals**, among which **19 in first and/or corresponding authorship**. **h-index** of **19 (21)** on **Scopus (Scholar)**, with 15 papers in journal with impact factor >10 (Nature Nanotechnology, Advanced Science, Advanced Functional materials, Nature Communication, ACS Nano, ACS Energy Letters, Light: Science & Applications, Small Science, Advanced Optical Materials, Proceedings of the National Academy of Sciences).

Pogna’s research activity is focused to the investigation of **low-dimensional quantum materials** by means of **near-field nano-imaging** and **ultrafast spectroscopy**. The objective is to identifying promising material

platforms for innovative **nano-optoelectronic** and **nanophotonic devices** for the detection, emission, and manipulation of electromagnetic radiation from the **THz** to the **UV range**, including novel saturable absorbers, modulators, photodetectors, emitters, frequency converters. Pogna is applying two experimental approaches:

♣ **Near-field imaging:** to study far infrared polaritons in 2D materials, including topological insulators and black phosphorus. She has developed novel near-field imaging methods built on THz quantum cascade lasers (single-mode, random, frequency combs), achieving record spectral coverage for table-top sources (not based on FEL or synchrotron), bringing seminal advances to THz surface waves understanding.

♣ **Ultrafast spectroscopy:** to study the optical properties of graphene, semiconducting two-dimensional crystals and their van der Waals heterostructures, and, more recently, nonlinear dielectric metasurfaces. She has developed state-of-the-art setups for transient absorption, time-resolved photoluminescence, time-resolved Faraday rotation, time-reversed circular dichroism and time-resolved second harmonics generation.

PEER RECOGNITION

• FELLOWSHIPS AND AWARDS

- 2024, Nov. Premio Marcello Sgarlata
- 2023, June Qualification to associate professorship in Italy (Abilitazione Scientifica Nazionale) in *Experimental Physics of Matter*
- 2018, Sept. Marie Skłodowska-Curie Actions [Seal of Excellence](#).
- 2013, July R.W.B Stephens Prize, 2013 International Congress on Ultrasonics

• INVITED TALKS AND CONTRIBUTED TALKS

I have presented my works at >40 international/national conferences. Since 2017:

11 invited talks: 2nd International Workshop on Near-field Optical Imaging and Spectroscopy 2024 (UK), Stormytune 2024 (Italy), MRS Spring 2024 (USA), META2023 (France), CLEO 2023 (USA), 2nd International Nanoscale Analytics Workshop 2022 (Germany), IRMMW-THz 2022 (Netherlands), META 2022 (Spain), ETSF Workshop 2022 (Belgium), CMD2020-GEFES (Spain), 8th-IDMRCS (Poland). [All based on personal mail invitation.](#)

2 keynote talks: IRMMW-THz 2020 (USA) and IRMMW-THz 2019 (France).

• INSTITUTIONAL RESPONSIBILITIES

- 2023, Nov. European Tender Commission (455k) for above-threshold open procedure to purchase two laser-sources (ASP platform CONSIP SPA art. 71 Dec. Leg. 36/2023)
- 2023, Jan. **Ph.D. evaluation** committee member, Physics Department, [Politecnico di Milano](#), Italy
- 2022 - **Webinar officer** of [CNR-IFN](#), 1 webinar per month, average attendance 25
- 2022 - Member of a committee for the selection of two **Fixed-term researcher** of [CNR](#)
- 2018 - 2021 **Laboratory head** of the SNOM facility at [NEST Laboratories](#), Pisa, Italy.

• ORGANISATION OF SCIENTIFIC MEETINGS

- 2024 - **IFN Days 2024**, Como, Italy
- 2023 - 2025 Technical Program Committee for **CLEO USA –Subcommittee S&I5** as **Member** (CLEO 2024) and **Chair** (CLEO 2025)
- 2023 - **ICOP 2024**, Firenze, Italy
- 2018 - 2022 **Webinar officer** of *Non-linear Optics Technical Group*, [Optica](#) (formerly OSA)

• EDITORIAL BOARDS

- 2024-2027 Early Career Editorial Advisory Board Member of [Applied Physics Letters](#)
- 2024-2027 Editorial Board Member of [Optics Continuum](#) (Optica)
- 2022 - Editorial Board Member of [Scientific Reports](#) (Nature Portfolio)

• REVIEWING ACTIVITIES

- 2016 - Nature Communications, Physical Review Letters, Physical Review B, Physical Review, Applied, iScience, Nanoscale Advances, Applied Physics B, Applied Physics Letters, Optics Express, European Physics Letters, Scientific Reports, Optical Materials, Advanced Photonics, New Journal of Physics