

# Davide Faccialà

## *Curriculum Vitae*

### Personal Information

Date of birth \_\_\_\_\_

Place of birth \_\_\_\_\_

Citizenship \_\_\_\_\_

### Research Interests

Attosecond Science and High-order Harmonic Generation Spectroscopy [see A];  
Nonlinear Optics and Strong Field Physics [see B];  
Ultrafast XUV and X-ray Spectroscopy [see C];  
Atomic and Molecular Physics.

### Present Position

- from Jul 2019 **Senior post-doc researcher**, Istituto di Fotonica e Nanotecnologie - Consiglio Nazionale delle Ricerche (CNR-IFN), Milano, Italy.
- Research activity: Development of a setup for attosecond transient absorption in biological molecules. High-order harmonic generation (HHG) in solids. Core-level Photoelectron Circular Dichroism in gaseous media.
  - Contract: Assegno di Ricerca funded by "Laboratorio Congiunto ATTOBIO" [see G1].
  - Period: Jul 14, 2019 - today
  - Adviser: Dr. Michele Devetta, Permanent Researcher (CNR-IFN).

### Past Experiences

- from Jul 2017 to Jul 2019 **Post-doc researcher**, Istituto di Fotonica e Nanotecnologie - Consiglio Nazionale delle Ricerche (CNR-IFN), Milano, Italy.
- Research activity: Photo-Electron Circular Dichroism (PECD) and ultrafast pump-probe spectroscopy of complex chiral molecules. Development of a mid-IR laser for generating single attosecond pulses in the water-window energy region. High-order harmonic generation HHG spectroscopy driven by near-IR and mid-IR laser sources in atoms and molecules. Pump-probe HHG spectroscopy in two-color fields. Development of new laser facility for dynamic imaging of complex molecules. HHG in integrated photonic devices.
  - Contract: Assegno di Ricerca funded by ELI (The Extreme Light Infrastructure) [see G2].
  - Period: Jul 14, 2017 - Jul 13 2019
  - Adviser: Dr. Caterina Vozzi, Senior Researcher (CNR-IFN).

- from Nov 2016 to Jul 2017 **Post-doc researcher**, Istituto di Fotonica e Nanotecnologie - Consiglio Nazionale delle Ricerche (CNR-IFN), Milano, Italy.
- Research activity: Development of new laser facility for dynamic imaging of complex molecules and for time resolved HHG ultrafast spectroscopy of impulsively aligned and oriented molecules. HHG in integrated photonic devices. Pump-probe HHG spectroscopy in two-color fields. HHG spectroscopy driven by near-IR laser sources in atoms and molecules.
  - Contract: Assegno di Ricerca funded by RC StG Starting Research Grant UDYNI [see G3].
  - Period: Nov 01, 2016 - Jul 13, 2017
  - Adviser: Dr. Caterina Vozzi, Senior Researcher (CNR-IFN).

## Education and Training

### Education

- Mar 13, 2017 **PhD in Physics**, Politecnico di Milano, Italy.
- Research activity: High-order harmonic generation (HHG) spectroscopy driven by near-IR laser sources in atoms and molecules. Pump-probe HHG spectroscopy by tailored laser fields. Photo-ionization processes and ultrafast pump-probe spectroscopy of atoms and molecules at FERMI Free Electron Laser facility. HHG ultrafast spectroscopy of impulsively aligned and oriented molecules.
  - Grant: Italy PhD Scholarship [see G4].
  - Qualification awarded: Dottore di Ricerca PhD in Fisica *cum Laude*.
  - Diploma supplement document ID: 159231/3, protocol date: Mar 23 2017.
  - Thesis: "Attosecond multi-electron dynamics probed by HHG in bichromatic fields".
  - Adviser: Prof. Salvatore Stagira (Politecnico di Milano).
- Oct 03, 2013 **Master of Science in Engineering Physics**, Politecnico di Milano, Italy.
- Specialization: Photonics and Nano Optics.
  - Topics: Micro and Nanooptics, Photonics, Solid State Physics, Optical and Electronic Measurement Systems, Electronics, Management of Product Requirements, Computing System, Mathematical Methods for Engineering, Automation, Informatics for Scientific Applications, Electron Microscopy, Plasmas in Surface Engineering, Molecular Modeling of Materials.
  - Qualification awarded: Dottore Magistrale in Ingegneria Fisica, 110/110 *cum Laude*.
  - Diploma supplement protocol number: 0096246, protocol date: Dec 05 2013.
  - Thesis: "Control of Ion-Electron Collisions for studying Molecular Orbitals through HHG".
  - Adviser: Prof. Salvatore Stagira (Politecnico di Milano).
- Sep 21, 2010 **Bachelor of Science in Engineering Physics**, Politecnico di Milano, Italy.
- Topics: Chemistry, Calculus and Analysis, Mechanics, Thermodynamics, Electromagnetism, Quantum Physics, Structure of Matter, Laser Science, Biomedical Optics, Optical Physics, Optical Technologies, Thermal Engineering, Statistics, Informatics, Electrical Engineering, Automation, Telecommunication, Mechanical Technologies, Economics and Business Management, Computer Science.
  - Qualification awarded: Dottore in Ingegneria Fisica, 105/110.
  - Diploma supplement protocol number: 0060349, protocol date: Sep 14 2011.
  - Thesis: "Nonlinear Interferometric Measurement of the CEP of mid-IR laser pulses".
  - Adviser: Prof. Salvatore Stagira (Politecnico di Milano).
- Jul 2007 **Diploma di Liceo Scientifico**, Istituto Facchetti, Treviglio BG, Italy.
- Qualification awarded: Diploma di Liceo Scientifico, 100/100 *cum Laude*.

### Training

- Nov 2016 **Management Essentials for PhDs PhD School**, Politecnico di Milano, Italy.
- Topics: Business Organization, IPR and Technology Transfer, Accounting and Performance Management, and Personal Development.
  - Period: Nov 05-09, 2016
  - Qualification awarded: Politecnico di Milano diploma in Management Essentials for PhDs.

- Jun 2015 **Ultrafast X-ray Summer School DESY**, Hamburg, Germany.
- Topics: X-ray Free Electron Lasers, mock beamtime proposal poster.
  - Period: Jun 22-25, 2015
- Jul 2014 **International School of Scientific Computation and MATLAB Università degli studi di Palermo**, Palermo, Italy.
- Topics: Scientific Computation, High Performance and Grid Computing, and Parallel Computing with MATLAB.
  - Period: Jul 22 - Aug 01, 2014

## Teaching and Mentoring

### Teaching Assistant

- from Feb 2021 to Jun 2021 **Experimental Physics I (10 ECTS) cod. 054215**, Dipartimento di Fisica, Politecnico di Milano, Italy.
- Main tasks: responsible for 40 hours of lectures for Bachelor students in Engineering Physics; providing support to students; planning final written exams.
  - Main topics: Classical Mechanics, Fluid Mechanics, and Thermodynamics.
  - Main instructor: Prof. Claudia Dallera.
  - Contract: Attività di supporto alla didattica (Law 240/2010 Art.23 & D.R. 4295/SAGNI/2017).
  - Contract Protocol N: 0030966/2021
  - Contract period: Feb 22, 2021 - Jun 04, 2021.
- from Feb 2020 to Jun 2020 **Experimental Physics I (10 ECTS) cod. 054215**, Dipartimento di Fisica, Politecnico di Milano, Italy.
- Main tasks: responsible for 40 hours of lectures for Bachelor students in Engineering Physics; providing support to students; planning final written exams.
  - Main topics: Classical Mechanics, Fluid Mechanics, and Thermodynamics.
  - Main instructor: Prof. Claudia Dallera.
  - Contract: Attività di supporto alla didattica (Law 240/2010 Art.23 & D.R. 4295/SAGNI/2017).
  - Contract Protocol N: 0032281/2020
  - Contract period: Feb 24, 2020 - Jun 05, 2020.
- from Feb 2019 to Jun 2019 **Experimental Physics I (10 ECTS) cod. 054215**, Dipartimento di Fisica, Politecnico di Milano, Italy.
- Main tasks: responsible for 40 hours of lectures for Bachelor students in Engineering Physics; providing support to students; planning final written exams.
  - Main topics: Classical Mechanics, Fluid Mechanics, and Thermodynamics.
  - Main instructor: Prof. Claudia Dallera.
  - Contract: Attività di supporto alla didattica (Law 240/2010 Art.23 & D.R. 4295/SAGNI/2017).
  - Contract Protocol N: 0021391/2019.
  - Contract period: Feb 25, 2019 - Jun 07, 2019.
- from Feb 2018 to Jun 2018 **Experimental Physics I (10 ECTS) cod. 063024**, Dipartimento di Fisica, Politecnico di Milano, Italy.
- Main tasks: responsible for 40 hours of lectures for Bachelor students in Engineering Physics; providing support to students; planning final written exams.
  - Main topics: Classical Mechanics, Fluid Mechanics, and Thermodynamics.
  - Main instructor: Prof. Claudia Dallera.
  - Contract: Attività di supporto alla didattica (Law 240/2010 Art.23 & D.R. 4295/SAGNI/2017).
  - Contract Protocol N: 0020587/2018.
  - Contract period: Feb 26, 2018 - Jun 08, 2018.

from Oct 2016 to Jan 2017 **Photonics I (10 ECTS)** *cod. 096030*, Dipartimento di Fisica, Politecnico di Milano, Italy.

- Main tasks: responsible for 20 hours of lectures for a class of about 120 Master of Science students in Engineering Physics; providing support to students; 1-hour matlab laboratory on Distributed Feedback Lasers.
- Main topics: Photophysics of Semiconductors, Advanced Semiconductor Laser, Fiber Optical Amplifiers and Semiconductor Optical amplifiers, LEDs, Photon Detectors, Radiometry.
- Main instructors: Prof. Mauro Nisoli and Prof. Gianluca Valentini.
- Contract: Incarico di Collaborazione (D.Lgs. 165/2001 Art.7 C.6 & D.R. 3894/AG/2008).
- Contract Protocol N: 0079591/2016.
- Contract period: Oct 03, 2016 - Jan 27, 2017.

from Oct 2015 to Jan 2016 **Physics I (8 ECTS)** *cod. 083560*, Dipartimento di Fisica, Politecnico di Milano, Italy.

- Main tasks: responsible for 32 hours of lectures for a class of about 120 Bachelor students in Electrical Engineering; providing support to students; planning and grading final written exams.
- Main topics: Classical Mechanics, Fluid Mechanics, and Thermodynamics.
- Main instructor: Prof. Cosimo D'Andrea.
- Contract: Incarico di Collaborazione (D.Lgs. 165/2001 Art.7 C.6 & D.R. 3894/AG/2008).
- Call Protocol N: 0040798/2015\*.
- Contract period: Oct 05, 2015 - Jan 29, 2016.

from Mar 2015 to Jun 2015 **Foundations of Electromagnetism (10 ECTS)** *cod. 084040*, Dipartimento di Fisica, Politecnico di Milano, Italy.

- Main tasks: responsible for 40 hours of lectures for a class of about 120 Bachelor students in Biomedical Engineering; providing support to students; planning and grading final written exams.
- Main topics: Static Fields, Electromagnetic Fields, Optics.
- Main instructor: Dr. Caterina Vozzi (CNR-IFN, Milano)
- Contract: Incarico di Collaborazione (D.Lgs. 165/2001 Art.7 C.6 & D.R. 3894/AG/2008).
- Call Repository N: 0001599/2014\*.
- Contract period: Mar 09, 2015 - Jun 26, 2015.

from Oct 2014 to Jan 2015 **Physics I (8 ECTS)** *cod. 083560*, Dipartimento di Fisica, Politecnico di Milano, Italy.

- Main tasks: responsible for 32 hours of lectures for a class of about 120 Bachelor students in Electrical Engineering; providing support to students; planning and grading final written exams.
- Main topics: Classical Mechanics, Fluid Mechanics, and Thermodynamics.
- Main instructor: Prof. Cosimo D'Andrea.
- Contract: Incarico di Collaborazione (D.Lgs. 165/2001 Art.7 C.6 & D.R. 3894/AG/2008).
- Call Repository N: 0000400/2014\*.
- Contract period: Oct 06, 2014 - Jan 30, 2015.

\* Contracts not protocolled before Sep 2016, copy available upon request.

### Student Laboratories

from Mar 2021 to Jun 2021 **Experimental Physics I (10 ECTS)** *cod. 054215*, Dipartimento di Fisica, Politecnico di Milano, Italy.

- Main tasks: responsible for online laboratories for students in Engineering Physics (5 laboratories of 4 hours each); grading laboratory reports.
- Main topics: Classical Mechanics, Thermodynamics, Physics of Solids and Fluids.
- Main instructor: Prof. Claudia Dallera.
- Contract: Attività di supporto alla didattica (Law 240/2010 Art.23 & D.R. 4295/SAGNI/2017).
- Contract Protocol N: 0045542/2021
- Contract period: Mar 15, 2021 - Jun 30, 2021

from Apr 2020 to Jun 2020 **Experimental Physics I (10 ECTS)** *cod. 054215*, Dipartimento di Fisica, Politecnico di Milano, Italy.

- Main tasks: responsible for online laboratories for students in Engineering Physics (5 laboratories of 4 hours each); grading laboratory reports.
- Main topics: Classical Mechanics, Thermodynamics, Physics of Solids and Fluids.
- Main instructor: Prof. Claudia Dallera.
- Contract: Attività di supporto alla didattica (Law 240/2010 Art.23 & D.R. 4295/SAGNI/2017).
- Contract Protocol N: 0054486
- Contract period: Apr 05, 2020 - Jun 30, 2020

Dec 2019 **Optical Physics and Technology (10 ECTS)** *cod. 085913*, Dipartimento di Fisica, Politecnico di Milano, Italy.

- Main tasks: responsible for 4 hours of lecture and supervision of laboratory for a class of about 100 third-year Bachelor students in Engineering Physics.
- Main topics: Holography and Fourier Optics.
- Main instructor: Prof. Sandro De Silvestri.
- Contract: Attività di supporto alla didattica (Law 240/2010 Art.23 & D.R. 4295/SAGNI/2017).
- Contract Protocol N: 0196381/2019.
- Contract period: Dec 02, 2019 - Dec 20, 2019.

from Mar 2019 to Jun 2019 **Experimental Physics I (10 ECTS)** *cod. 054215*, Dipartimento di Fisica, Politecnico di Milano, Italy.

- Main tasks: responsible for 28 hours of lecture and supervision of laboratory for groups of 25 Bachelor students in Engineering Physics; grading laboratory reports.
- Main topics: Classical Mechanics, Thermodynamics, Physics of Solids and Fluids.
- Main instructor: Prof. Claudia Dallera.
- Contract: Attività di supporto alla didattica (Law 240/2010 Art.23 & D.R. 4295/SAGNI/2017).
- Contract Protocol N: 0032300/2019
- Contract period: Mar 13, 2019 - Jun 10, 2019

Dec 2018 **Optical Physics and Technology (10 ECTS)** *cod. 085913*, Dipartimento di Fisica, Politecnico di Milano, Italy.

- Main tasks: responsible for 4 hours of lecture and supervision of laboratory for a class of about 100 third-year Bachelor students in Engineering Physics.
- Main topics: Holography and Fourier Optics.
- Main instructor: Prof. Sandro De Silvestri.
- Contract: Attività di supporto alla didattica (Law 240/2010 Art.23 & D.R. 4295/SAGNI/2017).
- Contract Protocol N: 0122067/2018.
- Contract period: Dec 01, 2018 - Dec 21, 2018.

from Mar 2018 to Jun 2018 **Experimental Physics I (10 ECTS)** *cod. 083024*, Dipartimento di Fisica, Politecnico di Milano, Italy.

- Main tasks: responsible for 32 hours of lecture and supervision of laboratory for groups of 20 Bachelor students in Engineering Physics; grading laboratory reports.
- Main topics: Classical Mechanics, Thermodynamics, Physics of Solids and Fluids.
- Main instructor: Prof. Claudia Dallera.
- Contract: Attività di supporto alla didattica (Law 240/2010 Art.23 & D.R. 4295/SAGNI/2017).
- Contract Protocol N: 0026311/2018
- Contract period: Mar 14, 2018 - Jun 08, 2018

from Nov 2017 to Dec 2017 **Optical Physics and Technology (10 ECTS)** *cod. 085913*, Dipartimento di Fisica, Politecnico di Milano, Italy.

- Main tasks: responsible for 4 hours of lecture and supervision of laboratory for a class of about 100 third-year Bachelor students in Engineering Physics.
- Main topics: Holography and Fourier Optics.
- Main instructor: Prof. Sandro De Silvestri.
- Contract: Attività di supporto alla didattica (Law 240/2010 Art.23 & D.R. 4295/SAGNI/2017).
- Contract Protocol N: 0101028/2017.
- Contract period: Nov 01, 2017 - Dec 22, 2017.

from Mar 2017 to Jun 2017 **Experimental Physics I (10 ECTS) cod. 083024**, Dipartimento di Fisica, Politecnico di Milano, Italy.

- Main tasks: responsible for 24 hours of lecture and supervision of laboratory for groups of 20 Bachelor students in Engineering Physics, grading laboratory reports.
- Main topics: Classical Mechanics, Thermodynamics, Physics of Solids and Fluids.
- Main instructor: Prof. Claudia Dallera.
- Contract: Incarico di Collaborazione (D.Lgs. 165/2001 Art.7 C.6 & D.R. 3894/AG/2008).
- Contract Protocol N: 0023904/2017.
- Contract period: Mar 20, 2017 - Jun 27, 2017.

Jan 2017 **Optical Physics and Technology (10 ECTS) cod. 085913**, Dipartimento di Fisica, Politecnico di Milano, Italy.

- Main tasks: responsible for 4 hours of lecture and supervision of laboratory for a class of about 100 third-year Bachelor students in Engineering Physics.
- Main topic: Second Harmonic Generation in Non-Linear Crystals.
- Main instructors Prof. Sandro De Silvestri.
- Contract: Incarico di Collaborazione (D.Lgs. 165/2001 Art.7 C.6 & D.R. 3894/AG/2008).
- Contract Protocol N: 0001979/2017.
- Contract period: Jan 09, 2017 - Jan 31, 2017.

Jan 2016 **Optical Physics and Technology (10 ECTS) cod. 085913**, Dipartimento di Fisica, Politecnico di Milano, Italy.

- Main tasks: responsible for 4 hours of lecture and supervision of laboratory for a class of about 100 third-year Bachelor students in Engineering Physics.
- Main topic: Second Harmonic Generation in Non-Linear Crystals.
- Main instructor: Prof. Sandro De Silvestri.
- Contract: Incarico di Collaborazione (D.Lgs. 165/2001 Art.7 C.6 & D.R. 3894/AG/2008).
- Call Protocol N: 0062972/2015\*.
- Contract period: Jan 01, 2016 - Jan 29, 2016.

from Mar 2014 to Jul 2014 **Experimental Physics**, Dipartimento di Fisica, Politecnico di Milano, Italy.

- Main tasks: Responsible for 40 hours of lecture and supervision of laboratory for 10 classes of about 120 Bachelor students from different Engineering courses.
- Main topics: Mechanics, Magneto/Electrostatic.
- Main instructors: Prof. Giovanni Consolati, Prof. Matteo Cantoni, Prof. Giulio Cerullo, Prof. Fiorenza Quasso, Prof. Margherita Zavelani, Prof. Cosimo D'Andrea, Prof. Riccardo Bertacco.
- Contract: Incarico di Collaborazione (D.Lgs. 165/2001 Art.7 C.6 & D.R. 3894/AG/2008).
- Call Protocol N: 0000100/2014\*.
- Contract period: Mar 24, 2014 - June 27, 2014.

\* Contracts not protocolled before Sep 2016, copy available upon request.

#### Tutoring

from Mar 2017 to Jun 2017 **Experimental Physics I (10 ECTS) cod. 083024**, Dipartimento di Fisica, Politecnico di Milano, Italy.

- Main tasks: responsible for 30 hours of lectures and face-to-face meetings for a class of about 50 Bachelor students in Engineering Physics; provided support students during the course; planned specific targeted exercises for unraveling students' doubts and filling in the gaps.
- Main topics: Classical Mechanics, Fluid Mechanics, and Thermodynamics.
- Main instructor: Prof. Claudia Dallera.
- Contract: Incarico di Collaborazione (D.Lgs. 165/2001 Art.7 C.6 & D.R. 3894/AG/2008).
- Contract Protocol N: 0023408/2017 & 0053884/2017.
- Contract period: Mar 06, 2017 - Aug 30, 2017.

from Jan 2016 to Sep 2016 **Experimental Physics I (10 ECTS) cod. 083024**, Scuola di Ingegneria Industriale e dell'Informazione, Politecnico di Milano, Italy.

- Main tasks: responsible for 30 hours of lectures and face-to-face meetings . for a class of about 50 Bachelor students in Engineering Physics; provided support students during the course; planned specific targeted exercises for unraveling students' doubts and filling in the gaps.
- Main topics: Classical Mechanics, Fluid Mechanics, and Thermodynamics.
- Main instructor: Prof. Claudia Dallera.
- Contract: Incarico di Collaborazione (D.Lgs. 165/2001 Art.7 C.6 & D.R. 3894/AG/2008).
- Contract Protocol N: 0076990/2015.
- Contract period: Jan 07, 2016 - Sep 30, 2016.

### Mentoring

since 2014 **Bachelor students.**

Mentoring activity for more than 20 Bachelor students.

since 2014 **Master of Science students.**

Mentoring activity for 7 Master of Science students. Co-advisor of 1 thesis.

- Co-advisor of A. Annunziata. Thesis: "High-order harmonic generation in Semiconductor Crystals".
- Mentoring of L. Gatto. Thesis: "Photon-assisted processes in GaAs probed by time-resolved THz spectroscopy".
- Mentoring of M. Bonanomi. Thesis: "HHG in a chip for the generation of isolated attosecond pulses".
- Mentoring of G. Crippa. Thesis: "Novel experimental approaches in high-harmonic spectroscopy of atoms and molecules".
- Mentoring of C. Comparelli. Thesis: "High-order harmonic generation in a chip fabricated through femtosecond laser irradiation followed by chemical etching techniques".
- Mentoring of G. Mariani. Thesis: "Realizzazione di una sorgente accordabile di impulsi laser ultrabrevi mediante four wave mixing in fibra cava".
- Mentoring of L. Cardellino. "Study of rotational dynamics in impulsively aligned molecules by high order harmonic generation".

since 2017 **PhD Students.**

Mentoring activity for 5 PhD students.

- L. Gatto: ongoing thesis work funded by ELI [see F7] and IMPULSE.
- M. Bonanomi: ongoing thesis work funded by ELI [see F7] and IMPULSE.
- G. Crippa: ongoing thesis work funded by Italy PhD Scholarship.
- P. Prasanna Geetha: "High energy ultrafast tunable mid-IR sources for the application in strong field physics and spectroscopy". Thesis work funded by the ASPIRE project [see F3]. Participation to ASPIRE project network meeting in Frankfurt as Supervisor (Sep 24-26 2018).
- A. Pusala: "Development of ultrafast Mid-IR sources and their applications to high-order harmonic generation spectroscopy". Thesis work is funded by the MEDEA project [see F4],

## Professional Activities

### Grants

from Jul 2019 [G1] **Post-doc Fellowship at Istituto di Fotonica e Nanotecnologie - Consiglio Nazionale delle Ricerche (CNR-IFN)**, Milano, Italy.

- Funding Grant: "Laboratorio Congiunto ATTOBIO" (SAC.AD002.026) [see F1].
- Call: "Sviluppo di un setup per misure di assorbimento transiente ad attosecondi per lo studio di molecole biologiche".
- Call N: 126.247.AR174.
- Contract: Assegno di Ricerca (Law 240/2010 Art.22).
- Renewal Protocol N: CNR-IFN 0001631, Jul 02, 2020
- Period: Jul 15, 2019 - today.

- from Jul 2017 to Jul 2019 [G2] **Post-doc Fellowship at Istituto di Fotonica e Nanotecnologie - Consiglio Nazionale delle Ricerche (CNR-IFN), Milano, Italy.**
- Funding Grant: ELI (The Extreme Light Infrastructure) – ELI Grant No. ESFRI Roadmap [see F7].
  - Call: "Sviluppo di sorgenti parametriche nell'infrarosso a fase assoluto stabile per la generazione di impulsi isolati ad attosecondi nella water-window".
  - Call N: CNR-IFN 126.247.AR138.
  - Contract: Assegno di Ricerca (Law 240/2010 Art.22).
  - Contract Protocol N: CNR-IFN 0002745, Jul 12, 2017
  - Renewal Protocol N: CNR-IFN 0001970, Jul 13, 2018
  - Period: Jul 14, 2017 - today.
- from Nov 2016 to Jul 2017 [G3] **Post-doc Fellowship at Istituto di Fotonica e Nanotecnologie - Consiglio Nazionale delle Ricerche (CNR-IFN), Milano, Italy.**
- Funding Grant: ERC StG Starting Research Grant "Ultrafast dynamic imaging of complex molecules (UDYNI)" – ERC grant agreement no. 304964-UDYNI. EC Seventh Framework Program [see F5].
  - Call: "Spettroscopia risolta nel tempo di molecole mediante armoniche di ordine elevato generate da sorgenti parametriche ultraveloci nel vicino infrarosso in campioni allineati ed orientati impulsivamente".
  - Call N: CNR-IFN 123.247.AR.127.
  - Contract: Assegno di Ricerca (Law 240/2010 Art.22).
  - Contract Protocol N: CNR-IFN 0002745, Oct 28, 2016
  - Period: Nov 01, 2016 - Jul 13, 2017.
- from Nov 2013 to Nov 2016 [G4] **Italy PhD Scholarship at Physics Department, Politecnico di Milano, Italy.**
- Call Protocol Number: 0000851/2013.
  - Period: Nov 01, 2013 - Oct 31, 2016.
- Fundings ID
- from Jan 2019 to Dec 2021 [F1] **ATTOBIO Laboratorio Congiungo Bilaterale Internazionale CNR.**
- Role: participant
  - Project: Programma di Ricerca Laboratorio congiunto Devetta/Calegari "ATTOBIO"
  - Funded under: CNR - Laboratori Congiunti Bilaterali Internazionali nell'area tematica Ottica, Fotonica e Tecnologie Quantistiche
  - Project ID: SAC.AD002.02
- from Oct 2018 to Mar 2020 [F2] **FESTA ERC Proof of Concept.**
- Role: participant
  - Project: Flexible Euv SpecTrometer for Attosecond science (FESTA)
  - Funded under: H2020-EU.1.1. - EXCELLENT SCIENCE - European Research Council (ERC)
  - Project ID: 813103
- from Mar 2016 to Feb 2020 [F3] **ASPIRE Marie Skłodowska-Curie Innovative Training Networks (ITN-ETN).**
- Role: participant
  - Project: Angular studies of photoelectrons in innovative research environments (ASPIRE)
  - Funded under: H2020-EU.1.3.1. - Fostering new skills by means of excellent initial training of researchers
  - Project ID: 674960
- from Jan 2015 to Dec 2018 [F4] **MEDEA Marie Skłodowska-Curie Innovative Training Networks (ITN-ETN).**
- Role: participant
  - Project: Molecular Electron Dynamics investigated by intense fields and Attosecond pulses (MEDEA)
  - Funded under: H2020-EU.1.3.1. - Fostering new skills by means of excellent initial training of researchers
  - Project ID: 641789