

WORK EXPERIENCE

March 2023–June 2023 **Teaching Assistant for "General Physics I"**

Course Coordinator: Professor T. Guidi
University of Camerino, Camerino, Italy

March 2023–June 2023 **Teaching Assistant for "Experimental Materials Science"**

Course Coordinators: Professor R. Gunnella and Professor S. J. Rezvani
University of Camerino, Camerino, Italy

July 2020– December 2021 **Export Manager**

Company: Pooya Payam Saderat
Website: <https://sadermc.com/>

- Responsibilities:
- Sales and Negotiations
 - Market Research and Analysis
 - Coordination with Production, Quality Control and Logistics
 - Customer Service and After-Sales Support

October 2019–July 2020 **Technical Engineer and Quality Control Staff**

Company: Arad Engineering
Website: <https://aradindustryco.ir/>

- Responsibilities:
- Design and Reverse Engineering
 - Quality Control, Documentation and Compliance

January 2012–June 2012 **Teaching Assistant for "Technical Drawing"**

Course Coordinator: Professor R. Damadi
Sahand University of Technology, Tabriz, Iran

EDUCATION AND TRAINING

January 2022–January 2025 **Ph.D. in Physics- Materials Science**

Thesis Title: "*Characterization of Bi_2Se_3 Topological Insulator and Its Interfaces for Quantum Technologies*"
University of Camerino, Camerino, Italy
Supervisor: Professor R. Gunnella

September 2015–February 2018 **M.Sc. in Materials Engineering- Materials Characterization and Selection**

Thesis Title: "*Nickel Coating effects on thermal conductivity of graphene: A molecular dynamics study*"
K. N. Toosi University of Technology, Tehran, Iran
Supervisor: Professor A. Montazeri Hedesh

September 2011–September 2015 **B.Sc. in Materials Engineering- Industrial Metallurgy**

Thesis Title: "*Characterization of Aluminium Dross*"
Sahand University of Technology, Tabriz, Iran
Supervisor: Professor R. Damadi

PERSONAL SKILLS

Mother tongue **Azeri and Persian**

| Other languages | UNDERSTANDING | | SPEAKING | | WRITING |
|-----------------|---------------|---------|--------------------|-------------------|---------|
| | Listening | Reading | Spoken interaction | Spoken production | |
| English | C2 | C2 | C2 | C2 | C1 |
| Turkish | C2 | C1 | C1 | C1 | B2 |
| Italian | C1 | B2 | B2 | B2 | B2 |

Levels: A1 and A2: Basic user – B1 and B2: Independent user – C1 and C2: Proficient user
[Common European Framework of Reference for Languages](#)

- Communication skills**
- Strong interpersonal and communication skills, developed through multilingual interactions in diverse social and professional settings, as well as conferences and seminars.
 - Fluent in allowing effective communication with colleagues and mates from different cultural backgrounds.
 - Experienced in adapting communication styles to connect with a variety of audiences, gained through my studies in a multicultural, international environment and my previous role as an export manager.
 - Proven ability to convey complex information clearly and concisely.

- Scientific Achievements**
- During my higher education studies, I was actively involved in various projects and tasks, where I had the opportunity to practice and refine my skills in several advanced characterization techniques. These included Atomic Force Microscopy (AFM), Raman Spectroscopy, X-ray Photoelectron Spectroscopy (XPS), Scanning Electron Microscopy (SEM), and X-ray Diffraction (XRD).
 - I performed data analysis and graphing using professional software tools such as OriginPro, Igor Pro, CasaXPS, and Fityk.
 - I gained expertise in reconstructing theoretical models directly from experimental data using techniques such as Monte Carlo simulations and machine learning.
 - Throughout my research, I demonstrated the ability to collaborate effectively within diverse teams, including PhD students and professors, in prestigious institutions such as the University of Camerino, University of Rome “Tor Vergata”, Elettra Sincrotrone Trieste, and the University of Modena. My contributions to these team projects ensured smooth coordination and productive outcomes.
 - I have also proven my capacity for time management, successfully handling multiple projects while meeting deadlines. This included balancing academic research, administrative tasks, and collaborative activities, ensuring consistent and timely results.
 - I effectively presented my research findings at various scientific events, including oral and poster presentations, as well as during weekly group meetings. My work has resulted in high-level peer-reviewed publications and conference proceedings, further showcasing my commitment to advancing scientific knowledge.

Digital competences

| SELF-ASSESSMENT | | | | |
|------------------------|-----------------|------------------|------------------|------------------|
| Information Processing | Communication | Content creation | Safety | Problem solving |
| Proficient user | Proficient user | Independent user | Independent user | Independent user |

[Digital competences - Self-assessment grid](#)

- Computer skills**
- Molecular Dynamics Software: Proficient in VMD, OVITO, and LAMMPS.
 - Materials Engineering: Experienced with X'Pert HighScore Plus and CATIA.
 - Data Analysis Software: Proficient in Microsoft Office Suite (Word, PowerPoint, Excel, Outlook), OriginPro, Igor Pro, CasaXPS and Fityk. Independent user in MATLAB and Python.
 - Computational Software: Mathematica.
 - Other Software: Independent user in Adobe Photoshop.
 - Operating Systems: Proficient user of macOS, Windows, and Ubuntu.
 - Experience in website management.

RESEARCH ACTIVITIES

Peer-review activities

- Frontiers in Astronomy and Space Sciences, since February 2025.
- Journal of Physical Sciences and Technology, since December 2023.
- International Journal of Mathematics and Physics, since October 2023.
- IEEE Nanotechnology Materials and Devices Conference (NMDC 2023), 2023.
- International Journal of Geometric Methods in Modern Physics (IJGMMP), since October 2022.

Conference Organization

Organizer as part of the Scientific and Local Organizing Committees (SOC and LOC, respectively) for the conference "Astrophysics and Space Science in Marche II," to be held at the University of Camerino in collaboration with INAF Bologna, 01-05 September, 2025. Website: <https://astromarche.unicam.it/>

Attended schools, Workshops and Trainings

- Event: **"UNICAM Research Day"**
Date: December 12, 2024
Organizer: University of Camerino
Location: Auditorium Benedetto XIII, Camerino, Italy.
- School on **"Surface Science and Applications"**
Date: November 25-27, 2024
Organizer: University of L'Aquila
Location: Canadian Hotel, L'Aquila, Italy.
- Summer school on **"Advanced Photonics and Electronics for Quantum and Space Applications"**
Date: August 29-September 2, 2022
Organizer: IHP - Leibniz-Institute for Innovative Microelectronics
Location: University of Rome "Tor Vergata", Italy and IHP - Leibniz-Institut for Innovative Microelectronics, Frankfurt-Oder, Germany.
- Workshop on **"Raman and infrared spectroscopies"**
Date: October 04-07, 2022
Location: Physics Section, School of Science and Technology, University of Camerino, Italy.
- Workshop on **"Open Science"**
Date: February 22-25, 2022
Location: University of Camerino, Italy.
- **"Nondestructive Testing (NDT)"** training
Date: Spring 2020
Location: Arad Engineering Company, Iran.
- Online Course **"Nanotechnology: A Maker's Course"**
Website: <http://www.coursera.com>

Attended Seminars

- "A New Perspective on Einstein's Field Equations: The Common Solution Space of GR", Dr. Andronikos Paliathanasis, February 05, 2025, University of Camerino, Italy.
- "The academic's art of work: How to survive and live to tell the tale" by Prof. Luca Aceto, December 11, 2024, University of Camerino, Italy.
- "How to write a paper and give a talk, and do so well" by Prof. Luca Aceto, December 10, 2024, University of Camerino, Italy.
- "Lensing signatures of accelerating black holes" by Mohammad B. J. Poshteh, November 27, 2024, University of Camerino, Italy.
- "A Dynamical Systems Formulation for Inhomogeneous LRS-II Spacetimes" by Saikat Chakrabarty, November 20, 2024, University of Camerino, Italy.
- "Clusters of galaxies. An overview at the intersection of Cosmology and Astrophysics" by Gianluca Castignani, October 23, 2024 University of Camerino, Italy.
- "Searching for DE Off the Beaten Track" by Sunny Vagnozzi, September 28, 2024, University of Camerino.
- "Time is Entropy: A Geometric Proof" by Prof. Hernando Quevedo, September 25, 2024, University of Camerino.
- "Probing Modified Symmetric Teleparallel Gravity with Future Gravitational
- "Waves Standard Sirens" by Rocco D'Agostino, June 19, 2024, University of Camerino.
- "Quasi-Homogeneous Thermodynamics" by Hernando Quevedo, June 2024, University of Camerino, Italy.

- “Does dark energy really revive using DESI 2024 data?” by Dr. Marco Muccino and Prof. Orlando Luongo, May 24, 2024, INFN, Laboratori Nazionali di Frascati, Italy.
- “Structure Formalism in Models Beyond LCDM” by Prof. Francesco Pace, May 22, 2024, University of Camerino.
- “Metric Perturbation in GTD” by Jesus Anaya, May 04, 2024, University of Camerino.
- “An Introduction to GTD (Geometrothermodynamics)” by Prof. Hernando Quevedo, February 2024, University of Camerino.
- “Intellectual property and research benefits” by Marika Marinelli and Sara Boldrini, December 06, 2023, University of Camerino, Italy.
- “EU Funding: Policies and Opportunities” by Simona De Simone and Melissa Mancini, November 28, 2023, University of Camerino, Italy.
- “Open Science and Open Innovation”, by Melissa Mancini, Sara Boldrini and Marika Marinelli, November 24, 2023, University of Camerino, Italy.
- “Freedom of Research and Legal Protection” by Marika Marinelli and Sara Boldrini, November 15, 2023, University of Camerino, Italy.
- “Open Science as the New Normal: Tools and Opportunities for Students and Young Researchers”, November 14, 2023, University of Camerino, Italy.
- “Luminosity of Accretion Disk in Compact Objects” by Prof. Kuantay Boshkayev, June 13, 2023, University of Camerino.
- “Asymptotic Quantum to Classical Transition of Fluctuations in Time Dependent Background” by S. Mahesh Chandran, July 04, 2023, University of Camerino.
- “Communication skills - Written Communication English for Academic Purposes (Scientific Writing)”, February 14-16, 2023, University of Camerino, Italy.
- “Black Holes and Wormholes: Possible Time Machines?” by prof. Salvatore Capozziello, 06 April 2022, University of Camerino.
- “Open Science, the time is now” by Paola Masuzzo February 21, 2022, University of Camerino, Italy.

Memberships INFN Perugia, member since 2022.

Certificates “General Safety Training for Workers” certificate issued by University of Camerino, October 22, 2022.
