

Marika Pescosolido (She/Her)

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👤 PROFESSIONAL SUMMARY

Ambitious and performance-driven physics undergraduate, author of globally award-winning research on “Sustainable Waste-to-Energy Plants”. Enterprising team player, and thoughtful leader with experience in research and diplomacy. Analytical, critical, and open-minded problem solver. Multi-faceted science communicator, dedicated to leveraging technology to tackle social challenges.

🎓 EDUCATION

2025 – 2029 (Expected)	Georgia Institute Of Technology, United States Honors Program Bachelor of Science in Physics , Minor in German Relevant coursework: Physics of Cognition, Data Science and Public Policy, Honor Physics, Linear Algebra.	(GPA: 4.0/4.0)
2023 – 2025	UWC Robert Bosch, Germany (3.14% acceptance rate) International Baccalaureate Diploma Relevant coursework: Physics Higher Level, Mathematics AA Higher Level, Chemistry Higher Level, Economics, English Language and Literature, German Language.	Diploma

📖 SKILLS AND AREAS OF KNOWLEDGE

Physics and Chemistry	Computational Physics, Astrophysics, Gravitational Physics, High Energy Physics, Quantum Chemistry, Molecular Modeling, Spectroscopy, Python Data Analysis, Experimental Data Processing.
Biomedical computation	EEG/neurophysiological signal processing, ML for neural data.
Languages (B1-C2)	English (Fluent); Italian (Native); German, Macedonian (Proficient).

🏆 AWARDS AND HONORS

- RISE Global Winner:** Global award earned with a competitive 0.5% acceptance rate for my research on waste-to-energy technologies. Undergraduate scholarship and lifelong access to opportunities, financial resources, and global network.
- SNEA National Summer School of Astronomy and Excellence:** Recognized as the 2nd best high school student nationwide and selected for high-level training program by the National Institute for Astrophysics and MIUR.
- Harvard-WECode WEAmplify Scholarship:** Awarded the WEAmplify Scholarship for the WECode Harvard Conference, the world’s largest student-run undergraduate women in tech conference, supporting emerging leaders in computer science and engineering.
- National Space Society spUN Debater:** Globally selected to debate on space law and policy to formulate arguments and assess geopolitical, legal, and ethical implications of international treaties and emerging space technologies.
- Winner “Porte d’Europa” Competition:** Developed a web platform empowering migrants to navigate Italy’s bureaucratic system, recognized for advancing inclusion and human rights.

Awarded an international scholarship by the “Comitato 3 Ottobre” to attend the four-day “Semi di Lampedusa” seminar.

6. **Commitment to Activities and Educational Projects for Excellent Students:** Three-time award recipient at Liceo Scientifico Teresa Gullace for exceptional commitment to academic and extracurricular initiatives.
7. **Professional Development and Leadership Chair for Honor Council at Georgia Tech:** Responsible for designing and organizing career development programming for more than 900 honors students. Contracted commitment of 10 hours/week.

RESEARCH EXPERIENCE

- › **Cortical information processing for anticipation and surprise**
Authors: E.Abdelaleem,..., M.Pescosolido,..., T.Celikel. (in prep) Aug 2025 – Present
Georgia Institute of Technology (Atlanta, United States)
Presented at: American Physical Society, CU*iP Conference
- Conducted EEG analyses of multisensory integration using mutual information to investigate information flow in the brain, employing neural networks and the Python library Neural MI.
- › **The Impact of the 2021 Euro-5 Fuel Standard on PM2.5 Levels in Karachi**
Authors: Dan Galea, Jinho Kim, Marika Pescosolido. (in review) Aug 2025 – Present
Georgia Institute of Technology (Atlanta, United States)
Presented at: Southern Regional Honors Council
- Investigating air-quality levels in Karachi, building a synthetic counterfactual to compare STL-adjusted PM2.5-concentration data performing DiD and a placebo test.

CERTIFICATIONS

Open Science Trainings	NASA
Data Analysis and Visualization with Python	Microsoft
Pets, Politics, and Pandemics: Navigating Life with Lessons from Science	Columbia+
Design Your Path In Life Challenge	DC Design

LEADERSHIP AND EXTRACURRICULAR ACTIVITIES

- **Founder and Leader of “UWCxSTEM”**
Global network of 1,343 members connecting STEM majors with professionals working at the intersection of science and social impact through monthly expert webinars and discussions.
- **Aspire Leadership Program (Harvard Business School)**
Selected for competitive, nine-week international leadership development course, founded at Harvard’s Mittal South Asia Institute and now run independently by the Aspire Institute.
- **International Robert Bosch College Student Government & Council Representative**
Advocating for student priorities, coordinating initiatives, promoting cross-cultural understanding, and fostering collaboration across all 18 Colleges by addressing shared-community goals.
- **Leadership - Pesaro Summer School 2024, FAMI**
Nationally selected to cultivate leadership and entrepreneurship skills through guided team-based product development.
- **Founder and Leader of “The Curious World of Astronomy”**
Produced and narrated astronomy videos, engaging diverse audiences. Content based on scientific journals and NASA resources for accuracy. Coordinating astronomy events and excursions.