

Short CV

Full Name	Eleni Petridou
Position	Laboratory Teaching Staff member at the Laboratory of Didactics of Physics and Educational Technology (EDIFET)
Studies	<p>2000 – BSc in Physics, Aristotle University of Thessaloniki</p> <p>2003 – MSc, Department of Primary Education, Aristotle University of Thessaloniki, specialization in “Science Education and New Technologies”</p> <p>2008 – PhD, Department of Primary Education, Aristotle University of Thessaloniki, specialization in “Science Education and New Technologies”. Doctoral dissertation: “Development, implementation and investigation of simulated models in Science Education”</p> <p>2010 – Postdoctoral Research, Department of Primary Education, Aristotle University of Thessaloniki, funded by the Research Committee, on the topic: “Investigation of teachers’ conceptions about scientific models and students’ ability to use them”</p>
Discipline	Didactics of Physics
Courses Taught	<p>Teaching undergraduate courses in the Department of Physics:</p> <ul style="list-style-type: none"> • Didactics of Physics • Laboratory Exercises in Physics • Didactics of Physics Laboratory • Educational Technology Laboratory • Internship <p>Teaching postgraduate courses in the MSc Programme “Didactics in Physics and Educational Technology”, Department of Physics:</p> <ul style="list-style-type: none"> • Design and Implementation of Non-Formal Educational Activities • Internship Science Activities • Contemporary Approaches in Teaching and Learning Physics
Participation in Research Projects and Educational Material Development	<ul style="list-style-type: none"> • 2024–2025: “Promoting 21st Century Skills through an Inclusive STEAM Approach to Cultural Heritage”. European Erasmus+ Programme. Project Code: 73920. Principal Investigator: A. Molohidis. • 2018–2022: “Study of the development of aspects of students’ scientific literacy in formal and informal educational settings through the use of online virtual laboratories and geospatial data”. NOESIS – Thessaloniki Science Center and Technology Museum • 2014: “Training teachers in the use and implementation of ICT in teaching practice in the 8 Convergence Regions”, Project “A1 – B’ Level 2”. Computer Technology Institute and Press “Diophantus”. • 2009: “Materials Science” (University–School partnership for the design and implementation of research-based ICT-enhanced materials on Materials Science), Science and Society FP7. Collaboration among schools and universities for the design and implementation of research-based educational material in Materials Science. Project Code: 81896. Principal Investigator: D. Psillos, in collaboration with the Department of Physics, Aristotle University of Thessaloniki, and six universities from other countries. • 2009: “RES” (Rete europea per l’Educazione Scientifica – European Network for Scientific Education), European Commission, Leonardo da Vinci LLP-LDV/TOI/2007/IT/372. European network for science education. Project Code: 83175. Principal Investigator: E. Hatzikraniotis, in collaboration with partners from Italy and the Netherlands.

	<ul style="list-style-type: none"> • 2005–2007: “Development of an Open Learning Environment”. Ministry of Education & Computer Technology Institute. Towards the effective use of Information and Communication Technologies for open learning in Physics Education in Europe. Project Code: 78115. Principal Investigator: D. Psillos, in collaboration with the Departments of Physics and Informatics, Aristotle University of Thessaloniki. • 2003–2005: Collection, classification, and development of the presentation “TECHNOMATHEIA, 1995–2006: Educational Approach and Projects”, a CD-ROM presentation and review of the TECHNOMATHEIA II–IV programmes. NOESIS – Thessaloniki Science Center and Technology Museum, commissioned by the General Secretariat for Research and Technology. • 2001–2002: Development of original digital educational material for Physics, within the framework of the educational service “Electronic School”, for MLS Informatics. • 1999–2000: “Development of an Integrated Laboratory Environment using Multimedia”. Ministry of Education – Computer Technology Institute, Odyssea Action (2000–2001). Project Code: 9323. Principal Investigator: P. Argyrakis.
Selected Publications	<ul style="list-style-type: none"> • Mantelaki, F., & Petridou, E. (2026). From textbook images to functional models: a model-based teaching intervention on electric current to foster scientific literacy and 21st-century learning skills. <i>Physics Education</i>, 61(1), 12. https://doi.org/10.1088/1361-6552/ae2e75 • Petridou, E., Molohidis, A., & Hatzikraniotis, E. (2025). Contextual Influences on Self-Assessed TPACK: A Comparison of Physics Undergraduates and In-Service Science Teachers. <i>Trends in Higher Education</i>, 4(4), 76. https://doi.org/10.3390/higheredu4040076 • Sofianidis, A., Petridou, E., Stylianou, E., Tsaliki, C., Malletzidou, L., Sarmiento, C., Charalambous, C., Fotiadou, S., Makridou, T., Pires, I., Oikonomou, A., Cerqueira, C., Kaskamanidis, I., Oliveira, L., Kasvikis, K., & Molohidis, A. (2025). Bridging STEAM and Cultural Heritage Through Inclusive Inquiry: The SciArt Professional Development Program. <i>Education Sciences</i>, 15(11), 1551. https://doi.org/10.3390/educsci15111551 • Gkagkas, V., Petridou, E., & Hatzikraniotis, E. (2025). Attitudes and Interest of Greek Students Towards Science. <i>Education Sciences</i>, 15(9), 1171. https://doi.org/10.3390/educsci15091171 • Kousloglou, M., Petridou, E., Molohidis, A. and Hatzikraniotis, E. (2023). Assessing students' awareness of 4Cs skills after a mobile technology-supported inquiry-based learning. <i>Sustainability</i>, 15(8), 6725. https://doi.org/10.3390/su15086725 • Petridou, E., Molohidis, A., Hatzikraniotis, E. (2022) Assessing Students' Ability to Apply the Control of Variables Strategy when Engaged with Inquiry-Based Worksheets during the COVID Era. <i>Educ. Sci.</i>, 12, 668. https://doi.org/10.3390/educsci12100668 • Petridou, E., Psillos, D., Hatzikraniotis, E. and Kallery, M. (2013). A study on the exploratory use of microscopic models as investigative tools: the case of electrostatic polarization, <i>Concepts of Matter in Science Education</i>, Springer, ISBN 978-94-007-5913-8. • Petridou, E., Psillos, D., Hatzikraniotis, E., & Viiri, J. (2009). Design and development of a microscopic model in polarization. <i>Physics Education</i>, 44(6), 589-598.