CURRICULUM VITAE

Dr. Giorgos P. Veldes
Associate Professor
School of Science-Department of Physics
University of Thessaly

Director of ***"High frEquencies, metamateRials and nONlinear waves LABoratory, HERON LAB",*** https://heronlab.phys.uth.gr/

1. Personal Data

Name	*Giorgos*
Surname	*Veldes*
Father's Name	*Petros*
Researcher unique identifier	*http://orcid.org/0000-0002-4899-0563*
Year and place of birth	*01/01/1970, Pirgos Ilias*
Contact Information	**School of Science – Department of Physics** **University of Thessaly** 3rd km National Old Road Lamia- Athens, 35100, Lamia, Greece **Tel**: (+30) 22310-60304 **e-mail:** gveldes@uth.gr, http://giorgosveldes.users.uth.gr **Google Citations Profile:** https://scholar.google.gr/citations?user=43lvBeQAAAAJ&hl=el

2. Education

2015 **Department of Physics, National and Kapodistrian University of Athens.**
PhD degree with Thesis: "Localized waves in nonlinear metamaterials"
Advisor: Professor D.J. Frantzeskakis

1998 **Department of Physics and Informatics, National and Kapodistrian University of Athens.**
Master (M.Sc.) in Electronic and Telecommunications Engineering

1995 **Department of Physics, University of Athens.**
BSc. in Physics

3. Career - Employment

Academic Sector

January 2025 - present	Associate Professor, Department of Physics, University of Thessaly
September 2019- January 2025	Assistant Professor, Department of Physics, University of Thessaly
February 2019- September 2019	Assistant Professor, General Department ,University of Thessaly
October 2017-January 2019	Assistant Professor, Department of Electronics Engineering, Technological Educational Institute of Sterea Ellada
June 2010-October 2017	Lecturer (permanent), Department of Electronics Engineering, Technological Educational Institute of Sterea Ellada
September 2008- June 2010	Lecturer (non-tenured), Department of Electronics Technological Educational Institute of Lamia

4. Research experience

Area of expertise: Microwave and High Frequency Communications with emphasis in nonlinear waves. *My interests include*: metamaterials, nonlinear waves, plasma physics, radio astronomy technology**,** deep space communications.

a. Projects

08/2106-09/08/2019	Researcher in the project **NPRP9-326-1-067 «Split-ring resonator based nonlinear metamaterials: from few to many, theory and experiments**» which was evaluated as an excellent research project and funded (765.000 $) by Qatar National Research Fund (QNRF)
12/2017-today	Co-PI of the project of the first **Hellenic radio telescope THERMOpYlae**. The first radio telescope in Greece and at the southernmost end of Europe is currently being created as part of a research collaboration involving University of Thessaly (PI Dr. Giorgos Veldes) and Hellenic Open University (PI Dr. Nectaria Gizani).
7/2022-11/2025	External collaborator in the project **CIRA-2021-064 με τίτλο « Rogue Waves and Extreme Events in Plasmas and in Space Science »** which is funded by KU Internal Funding (scheme = CIRA = competitive internal research award)
9/2022-today	Researcher in the **ARTEMIS-JLS** Solar Radio Spectrograph

5. Selected publications

[J-9] M. Birba, I. Georgiou, I. Prokopiou and **G.P. Veldes** *Ionosphere thermal response to a HF radio wave interaction, during artificial 5577Å airglow enhancements at a sporadic E layer* Phys. Scr. **100** 105010 (2025). **DOI:** https://doi.org/10.1088/1402-4896/ae0f60

[J-8] G. P. Veldes, V Koukouloyannis, D. J. Frantzeskakis and P. G. Kevrekidis *NLS approximation and dark solitons for the Adlam–Allen model of cold collisionless plasma*s J. Phys. A: Math. Theor. 58 (2025). **DOI:** https://doi.org/10.1088/1751-8121/add7a6

[J-7] G. P. Veldes, N. Lazarides, D. J. Frantzeskakis & I. Kourakis *Coupled circularly polarized electromagnetic soliton states in magnetized plasmas*, Nonlinear Dynamics 112, (2024). **DOI**: https://doi.org/10.1007/s11071-024-09550-7

[J-6]. G. P. Veldes, *Implementing a transmission line electrical circuit model in a complementary metamolecule waveguide,* Eng. Res. Express 5 015014 (2023)
DOI*:* https://doi.org/10.1088/2631-8695/acb41a

[J-5]. M Birba, I Prokopiou and **G. P. Veldes**, *Evaluation of the effectiveness of energetic thermal electrons on the excitation of the ionospheric red 6300Å airglow*, Physica Scripta 98, 095005 (2023). **DOI***:* https://doi.org/10.1088/1402-4896/acea47

[**J-4**]. M Birba, I Prokopiou and **G. P. Veldes**, *Joule heating in the mid-latitude ionosphere by high power HF radio waves,* Physica Scripta 97, 095002 (2022). **DOI***:* https://doi.org/10.1088/1402-4896/ac837f

[J-3]. G. P. Veldes, J. Cuevas, P. G. Kevrekidis, and D. J. Frantzeskakis, Coupled backward- and forward-propagating solitons in a composite right- and left-handed transmission line Phys. Rev. E 88, 013203 (2013)**. DOI:** https://doi.org/10.1103/PhysRevE.88.013203

[J-2]. G. P. Veldes, J. Borhanian, M. McKErr, V. Saxena, D. J. Frantzeskakis, and I. Kourakis *Electromagnetic rogue waves in beam-plasma interactions*, J. Opt. 15, 064003 (2013). **DOI:** https://iopscience.iop.org/article/10.1088/2040-8978/15/6/064003

[J-1]. G. P. Veldes, J. Cuevas, P. G.Kevrekidis, and D. J. Frantzeskakis, *Quasidiscrete microwave solitons in a split-ring-resonator-based left-handed coplanar waveguide*, Phys. Rev. E 83, 046608 (2011). **DOI:** https://doi.org/10.1103/PhysRevE.83.046608

6. Major Collaborations

- Prof. D.J. Frantzeskakis Department. of Physics, National and Kapodistrian University of Athens, Greece
- Prof. P.G. Kevrekidis, Department of Mathematics and Statistics, University of Massachusetts, Amherst, Massachusetts, USA
- Prof. I. Kourakis, Khalifa University of Science and Technology, Department of Mathematics, Abu Dhabi, UAE
- Dr N. Gizani, Associate Professor, Hellenic Open University