

PERSONAL INFORMATION



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Full CV https://drive.google.com/file/d/1LXYXo_Vrfo4C0JC8WJxGOQKcFBI_tzpCg/view

CURRENT POSITION

11/2021 - present Associate Professor, Department of Physics, University of Ioannina, Greece.

RESEARCH INTERESTS

Accelerator-based Atomic Physics

- Fast ion-atom collisions with velocities up to the relativistic regime.
- Electron scattering processes and dynamics.
- Pre-excited ionic beams.
- Development of high-resolution high-efficiency electron spectrographs.

Laser-based Atomic Molecular and Optical Physics

- Strong-field laser-matter interactions.
- Higher order harmonics generation and applications.
- Molecular photoionization and photodissociation.
- Secondary relativistic electron sources.

ACADEMIC/RESEARCH POSITIONS

09/2013 – 10/2021 Assistant Professor, Department of Physics, University of Ioannina, Greece.
09/2021 – present Member, Institute of Plasma Physics and Lasers, Hellenic Mediterranean University, Greece.
10/2014 - 08/2016 Collaborator Teaching Staff, Hellenic Open University, Greece.
11/2009 - 08/2013 Assistant Professor (tenure-track), Department of Physics, University of Ioannina, Greece.
08/2007 - 10/2009 Associated Application Scientist C (tenure-track), Institute of Electronic Structure and Laser, Greece.
Field of study: *Applications of ultrafast high intensity laser systems.*
09/2003 - 07/2007 Research Associate, Institute of Electronic Structure and Laser, Greece.
08/2001 - 08/2003 Research Associate, Department of Physics, Kansas State University, USA.
09/1996 - 08/2001 Research Assistant, Department of Physics, Kansas State University, USA.
10/1993 - 12/2000 Teaching Assistant and Laboratory Instructor, Department of Physics, University of Crete, Greece.

EDUCATION

2001 Ph.D. in Atomic Physics - Department of Physics, University of Crete, Greece (in collaboration with the J.R, McDonald Laboratory, Department of Physics, Kansas State University, USA).

EMMANOUIL P. BENIS - SHORT CURRICULUM VITAE (11/2024)

- 1996 MSc in Physics - Department of Physics, University of Crete, Greece.
1993 BSc in Physics - Department of Physics, Aristotle University of Thessaloniki, Greece.

DISTINCTIONS

- 2016 “Outstanding Reviewer”, Journal of Physics B.
2018 “Outstanding Reviewer”, Nuclear Inst. and Methods in Physics Research B.
2017 Member of the Board and Spokesperson for Greece and Italy in the SPARC Collaboration: *Stored Particles Atomic Physics Collaboration*.
2019 Member of the Board for the “International Symposium on Ion-Atom Collisions – ISIAC”.
2019 Guest Editor for the special issue of the journal Atoms entitled “*Accelerator-Based Atomic Physics: Fast Ion-Atom and Ion-Molecule Collisions*”, (ISSN 2218-2004).
2019 “Outstanding Reviewer”, Journal of Physics B.
2020 Associate Editor for the journal Atoms.
2021 Associate Editor for the journal Frontiers in Physics.
2021 Member of the Board for the “Highly Charged Ions – HCI”.
2024 Deputy Spokesperson for the SPARC Collaboration: *Stored Particles Atomic Physics Collaboration*.

REVIEWER

- Reviewer in 22 scientific journals (including: Phys. Rev. Lett., Phys. Rev. A, Phys. Rev. B, J. Phys. B, New J. Phys., Phys. Chem. Chem. Phys.)
- Reviewer in various Electoral Bodies in Universities and Institutes.
- Reviewer for scientific proposals for the (i) Hellenic Foundation for Research and Innovation, (ii) Ministry of Development and Investment, (iii) General Secretariat for Research and Technology.

TEACHING

- Department of Physics, University of Ioannina (10 courses)
- Department of Chemistry, University of Ioannina (1 course)
- Hellenic Open University (1 course)
- Department of Biological Applications and Technology, University of Ioannina (1 course)
- Department of Electronics Engineering, TEI of Crete, Master’s Program PLAPA – Plasma Physics and Applications (1 course)
- Department of Electronics Engineering, Hellenic Mediterranean University, Master’s Program LAPLA - Lasers, Plasma and Applications (1 course)

TEXTBOOKS

- *Principles and Practice of Physics*, E. Mazur, Broken Hill Publishers Ltd, Member of the team for the translation design and scientific editing of the Greek edition of the book. [Webpage](#)
- *College Physics*, R. A. Freedman, T. Ruskell, P.R. Kesten and D.L. Tauck, Broken Hill Publishers Ltd, Member of team for the design and scientific editing of the Greek edition of the book. [Webpage](#)

SUPERVISION

Post-Doc: **1**
 PhD theses: **3**
 PhD theses co-supervision: **5**
 Master theses: **5**
 Bachelor theses: **24**

PUBLICATIONS

Articles in peer-reviewed journals: **78**
 Monographs in peer-reviewed invited chapters in books: **1**
 Articles in peer-reviewed invited chapters in books: **2**
 Articles in peer-reviewed international conference proceedings: **11**

Invited talks in conferences: **9**
 Oral presentation in conferences: **12**
 Poster presentations and abstract contribution in conferences: **92**

| | Scopus | Google Scholar |
|----------------------------------|--------|----------------|
| Citations | 1462 | 2008 |
| Citations without self-citations | 1020 | - |
| h-INDEX | 19 | 24 |

RECENT INDICATIVE PUBLICATIONS

1. *Radiative electron capture to continuum in $U^{89+} + N_2$ collisions: Experiment and Theory*
P.-M. Hillenbrand et al., [Phys. Rev. A **101**, 022708 \(2020\)](#)
2. *Pauli shielding and break-down of spin statistics in multi-electron, multi-open-shell dynamical atomic systems*, I. Madesis et al., [Phys. Rev. Lett. **124**, 113401 \(2020\)](#)
3. *Betatron-type laser-plasma x-ray sources generated in multi-electron gas targets*,
A. Grigoriadis et al., [Appl. Phys. Lett. **118**, 131110 \(2021\)](#)
4. *Electron quantum path control in high harmonic generation via chirp variation of strong laser pulses*
S. Petrakis et al., [Sci. Rep. **11**, 23882 \(2021\)](#)
5. *Subshell contributions to electron capture to the continuum in MeV/u collisions of deuterons with multielectron targets*, S. Nanos et al., [Phys. Rev. A **105**, 022806 \(2022\)](#)
6. *Coherent treatment of transfer excitation processes in swift ion-atom collisions*,
A. Laoutaris et al., [Phys. Rev. A **106**, 022810 \(2022\)](#)
7. *Efficient plasma electron accelerator driven by linearly chirped multi-10-TW laser pulses*
A. Grigoriadis et al., [Sci. Rep. **13**, 2918 \(2023\)](#)
8. *Cusp electrons production in collisions of open-shell He-like oxygen ions with atomic targets*
S. Nanos et al., [Phys. Rev. A **107**, 062815 \(2023\)](#)
9. *Non-linear QED approach of betatron radiation in a laser wakefield accelerator*
J.F. Ong et al., [Sci. Rep. **14**, 605 \(2024\)](#)
10. *Projectile excitation to autoionizing states in swift collisions of open-shell He-like ions with helium*
A. Laoutaris et al., [Phys. Rev. A **109**, 032825 \(2024\)](#)