Member Name: Ioannis Antoniades
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Current Position

2021 - Adjunct instructor (permanent) & researcher. Physics Department, Aristotle University of Thessaloniki (AUTH), Greece.

Education

1993 - 1999 PhD. "Monte Carlo methods and applications to atomistic simulations in polycrystalline alloys". Department of Physics, AUTH. Grade: Excellent.
1988 - 1992 Bachelor in Physics with honors, University of Chicago, IL, USA GPA: 3.55/4 (8.52/10).

Teaching Experience

2021 - Co-instructor in "Electrical circuits", (3rd semester undergraduate course), Physics Dept., Aristotle University of Thessaloniki.
2016 - 2018 Adjunct professor, American College of Thessaloniki-Northeastern University, Boston (NUin program). Designed and taught a 1st semester university physics course for 1st year study abroad students of Northeastern University.
2007 - 2021 Physics instructor at vocational (secondary education) lykeion in Thessaloniki.
2001 - 2006 Adjunct lecturer at Computer Science department, Aristotle University of Thessaloniki. Taught at undergraduate and post graduate level, *Linear Algebra, Theoretical Informatics, Quantum Computing, Micro-electromechanical systems, C+UNIX*,
2003 - 2006 Adjunct lecturer at Alexandreion Technological Institute of Thessaloniki. Taught *numerical methods in C, object-oriented programming with JAVA.*

Publications

45 scientific publications (19 International Journals, 2 book chapters, 16 full papers in special issues of international conferences and 9 extended abstracts in international conferences). Most relevant/characteristic:

- **Antoniades, I. P.,** Karakatsanis, L. P., & Pavlos, E. G. (2021). Dynamical characteristics of global stock markets based on time dependent Tsallis non-extensive statistics and generalized Hurst exponents. *Physica A: Statistical Mechanics and its Applications*, *578*, 126121.
- **Antoniades, I. P.,** Brandi, G., Magafas, L., & Di Matteo, T. (2021). The use of scaling properties to detect relevant changes in financial time series: A new visual warning tool. *Physica A: Statistical Mechanics and its Applications*, *565*, 125561.
- **Antoniades, I. P.,** Marinos, G., Karakatsanis, L. P., Pavlos, E. G., Stavrinides, S. G., Tassis, D., & Pavlos, G. P. (2019). Tsallis non-extensive statistics and multifractal analysis of the dynamics of a fully-depleted MOSFET nano-device. *Physica A: Statistical Mechanics and its Applications*, *533*, 121820.
- Miliou, A. N., **Antoniades, I. P.,** Stavrinides, S. G., & Anagnostopoulos, A. N. (2007). Secure communication by chaotic synchronization: Robustness under noisy conditions. *Nonlinear analysis: real world applications*, *8*(3), 1003-1012.
- S. P. Georgopoulos, P. Tziatzios, S. G. Stavrinides, **I. P. Antoniades**, M. H. Hanias (2023) "Reservoir Computing vs. Neural Networks in Financial forecasting", Int. J. Computational Economics and Econometrics , Vol. 13, No. 1.

Experience in RTD funded projects, Reviewing, Editing, and Organizational Experience

- Project Coordinator in 1 EU and 1 national funded RTD program. WP leader in 3 EU RTD projects. Participated in more than 30 EU, NATO, and Greek funded RTD and educational programmes.
- Peer reviewer for 6 Journals.
- Organizing committee member in 3 conferences (NSC 2022, 2024, Econophysics Colloquium 2020).

Scholarships/Awards

1994 - 1998 Doctoral studies, State Scholarships Foundation of Greece.
1995 Exceptional poster award in international conference (IIB 1995).
1988 – 1992 Full tuition scholarship, University of Chicago.