

## Curriculum Vitae

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### Dr. Lazaros Moysis

Post-Doctoral Fellow  
Laboratory of Nonlinear Systems – Circuits & Complexity (LANSCOM)  
Department of Physics  
Aristotle University of Thessaloniki, Greece  
Webpages:  
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### Personal Data

Date of Birth 26-01-1989  
Place of Birth Thessaloniki, Greece  
Nationality Greek

### Summary of Scientific – Academic Activities

- Over 35 International Journal publications and over 20 IEEE Conference contributions.
- Peer reviewer for over 40 Journals and Conferences.
- Guest Editor in 3 Special Issues.
- Organizing committee member in 3 conferences (NSC 2022, MOCAS 2021, 2022).
- Citation index >400.

### Education

2019 - 2022 Post-Doc. Physics Department, Aristotle University of Thessaloniki (AUTH), Greece. “Observer design for descriptor systems, with applications to synchronization and secure communications using chaotic systems”.

2017-2018 9 month service in the Greek Army. Signals Division.

2013-2017 PhD in Mathematical Theory of Systems and Control. Dissertation: Modeling, Reachability and Observability of Linear Multivariable Discrete Time Systems. Department of Mathematics, AUTH. Grade: Excellent.

2011-2013 MSc. Theoretical Computer Science and Systems & Control Theory. Department of Mathematics, AUTH. GPA: 9.8/10

2006-2011 Bachelor. Department of Mathematics, AUTH. GPA: 6.88/10.

### Research Interests

- Control Systems – Observer Design
- Chaotic Systems
- Chaos Synchronization
- Chaotification
- Chaos in Education
- Applications of chaos in:
  - Secure Communications
  - Random Number Generators
  - Data Encryption
  - Area Exploration and Surveillance

### Teaching Positions

2021 - 2022 Teaching Associate, Department of Mechanical Engineering, University of Western Macedonia, Kozani, Greece.

2021 Invited Lecturer (remote), Fall Semester, Department of Computer Aided Design, St. Petersburg Electrotechnical University “LETI”, Russia.

2019 - 2020 Teaching Associate, Department of Industrial Engineering and Management, International Hellenic University, Sindos, Greece.

2018 - 2019 Teaching Associate, Department of Mathematics, AUTH, Greece.

### Scholarships

2019-2021 Post-doctoral studies, State Scholarships Foundation of Greece.

2014 PhD studies, AUTH Research Committee.

2012 MSc studies, State Scholarships Foundation of Greece.

### Notable Publications

- **Moysis, L., Kafetzis, I., Baptista, M., & Volos, C. (2022).** Chaotification of One-Dimensional Maps Based on Remainder Operator Addition. *Mathematics*, 10(15), 2801.
- **Moysis, L., Kafetzis, I., Tutueva, A., Butusov, D., & Volos, C. (2022).** Chaos-Based Image Encryption Based on Bit Level Cubic Shuffling. In *Cybersecurity* (pp. 157-191). Springer, Cham.
- **Moysis, L., Gupta, M. K., Mishra, V., Marwan, M., & Volos, C. (2020).** Observer design for rectangular descriptor systems with incremental quadratic constraints and nonlinear outputs—Application to secure communications. *International Journal of Robust and Nonlinear Control*, 30(18), 8139-8158.
- **Moysis, L., Volos, C., Jafari, S., Munoz-Pacheco, J. M., Kengne, J., Rajagopal, K., & Stouboulos, I. (2020).** Modification of the Logistic Map Using Fuzzy Numbers with Application to Pseudorandom Number Generation and Image Encryption. *Entropy*, 22(4), 474
- **Moysis, L., Karampetakis, N., & Antoniou, E. (2019).** Observability of linear discrete-time systems of algebraic and difference equations. *International Journal of Control*, 92(2), 339-355.