

GEORGIA BAXEVANI

EDUCATION

Ph.D candidate in Mathematics and Applied Mathematics

2019-today

University of Crete

MSc. in Applied and Computational Mathematics

2016-2018

University of Crete

MSc thesis: Development of coarse-grained models for the dynamics of molecular systems, through atomistic simulation data analysis.

Supervisor: Vagelis Harmandaris.

BSc. in Applied Mathematics

2012-2016

University of Crete, Degree: 7.90, graduation ranking: 2nd

BSc thesis: Methods for approximating the potential of mean force in molecular systems.

Supervisor: Vagelis Harmandaris.

ACADEMIC EXPERIENCE

Ph.D scholarship

November 2023 - June 2025

Institute of Applied and Computational Mathematics, (I.A.C.M.), Foundation for Research and Technology Hellas, (F.O.R.T.H.)

Project: Development of Molecular Simulation methods of polymeric nanocomposite materials.

H.F.R.I. Ph.D candidate scholarship

April 2022 - October 2023

Project: Multi-scale modeling of non-equilibrium molecular systems using statistical analysis techniques.

Postgraduate scholarship

July 2021 - March 2022

Institute of Applied and Computational Mathematics, (I.A.C.M.), Foundation for Research and Technology Hellas, (F.O.R.T.H.)

Project: Development of Molecular Simulation methods of polymeric nanocomposite materials.

Research assistant

June 2019 - June 2021

Institute of Applied and Computational Mathematics, (I.A.C.M.), Foundation for Research and Technology Hellas, (F.O.R.T.H.)

Project: SISDECS.

Statistical Inference with Stochastic Differential Equations and applications in Complex Stochastic systems.

Laboratory assistant

2016

Department of Mathematics and Applied Mathematics, University of Crete, Greece

Course: Mathematical modeling, Prof. Vagelis Harmandaris.

AWARDS

- Poster presentation award in STOCHASTICA Colloquium, 26-28 August 2026, University of Niš, Serbia.
- Poster presentation award in 14th Hellenic Polymer Society International Conference, 22-25 November 2023, Aristotle University Research Dissemination Center, Thessaloniki.
- Award, SIAM Conference on Mathematical Aspects of Materials Science, 2021.
- Manassaki Scholarship, University of Crete, 2019-2020.

PUBLICATIONS

- G. Baxevani, E. Kalligiannaki, V. Harmandaris, *Study of transient dynamics of coarse-grained molecular systems with the path-space force-matching method*, Procedia Computer Science, 156, 59-68, 2019.

- G. Baxevas, V. Harmandaris, E. Kalligiannaki, I. Tsantili, *Bottom-up transient time models in coarse-graining molecular systems*, Multiscale modeling & Simulation, 2023, 21, 4, 1746-1774.
- G. Baxevas, A. Rissanou, E. Kalligiannaki, M. Doxastakis, V. Harmandaris, *Investigating the impact of resin additives on the rheological properties of polybutadiene melts*, Journal of Non-Newtonian Fluid Mechanics, 350, 2026, 105640.
- G. Baxevas, E. Kalligiannaki, V. Harmandaris, *Coarse-grained models for non-equilibrium molecular systems*, (in preparation).

CONFERENCES, WORKSHOPS & SCHOOLS

- STOCHASTICA Colloquium, 26-28 August 2026, University of Niš, Serbia.
- 14th FORTH Scientific Retreat, 11-13 October 2024, Conference Center of the International Olympic Academy, ancient Olympia, Greece.
- 14th Hellenic Polymer Society International Conference, 22-25 November 2023, Aristotle University Research Dissemination Center, Thessaloniki, Greece.
- 4th Workshop on Stochastic Methods in Finance and Physics, 17-21 July 2023, Heraklion, Crete, Greece.
- 13th FORTH Scientific Retreat, 15-16 July 2022, FORTH, Heraklion, Crete.
- Workshop on Statistical Inference with Stochastic Differential Equations and applications in Complex Stochastic systems, 18-19 November 2021.
- 4th International Conference on Uncertainty Quantification in Computational Sciences and Engineering, 28-30 June 2021, online.
- SIAM Conference on Mathematical Aspects of Materials Science, May 17 - 27, 2021, online.
- Variational Methods for Fluids and Solids, Student Compact Course, October 12-23, 2020, online.
- 9th International Young Scientists Conference in Computational Science, September 05-13, 2020, online.
- 8th International Young Scientists Conference in Computational Science, Heraklion, Greece, June 24-28, 2019.
- European Polymer Congress, Hersonissos Heraklion Crete, Greece, June 9-14, 2019.
- Workshop on Stochastic Methods in Finance and Physics, FORTH, Heraklion, Crete, Greece, 23-27 July 2018.
- Numerical analysis for deterministic and stochastic differential equations, School of Applied Mathematical and Physical Sciences of the National Technical University of Athens (NTUA), Athens, Greece, 10-13 July 2018.