

# GIANNIS STERGOU

*Computational Physicist*

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## ABOUT ME

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Computational physicist focused on translating wave-equation theory into working simulations. Experienced in light and acoustic wave modeling, quantum dynamics, and scientific programming.

## EXPERIENCE

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| <b>Foundation for Research and Technology – Hellas (FORTH), LBMI Lab</b><br><i>Simulation Team Member, SWOPT Project</i> | Heraklion, Greece<br>Dec. 2024 – Present |
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- Gained hands-on experience in light-propagation simulations with *WaveSim*, studying the source code in depth to implement the subsequent acoustic extension.
  - Built a **MATLAB** prototype extending *WaveSim* to acoustic wave propagation in 3 months, meeting tight project deadlines and presented results to lab and project partners.
  - Contribute physics insight and code reviews in bi-weekly “*WaveSim Development*” calls with **RAYFOS**.
  - Provide ongoing **Python** & **MATLAB** scripting support to lab members for data transformation and visualisation.

## EDUCATION

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| <b>University of Crete</b><br><i>Bachelor of Science in Physics</i> | Heraklion, Greece<br>Sept. 2016 – June 2024 |
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- Graduated with GPA: 7.7/10.
  - Bachelor’s thesis led to a peer-reviewed article in *Physica Scripta* 98 (2023), engineered and validated Python scripts (QuTiP, NumPy, SciPy, Matplotlib) to simulate XX-spin chains under non-Markovian reservoirs.
  - Built a strong quantum-mechanics foundation, completing multiple advanced electives including *Solid State Physics*, *Quantum Optics* and *Quantum Information*.
  - Achieved 9 / 10 in key mathematics electives (Partial and Ordinary Differential Equations, Linear Algebra).

## PUBLICATIONS

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G. Mouloudakis, **I. Stergou**, and P. Lambropoulos, “Non-Markovianity in the time evolution of open quantum systems assessed by means of quantum state distance,” *Physica Scripta*, vol. 98, no. 8, 085111 (2023).  
doi:10.1088/1402-4896/ace0de

## TECHNICAL SKILLS

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**Programming:** MATLAB, Python,  
**Python Libraries:** NumPy, SciPy, Matplotlib, QuTiP  
**Tools:**  $\text{\LaTeX}$ , Microsoft Word

## LANGUAGES

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**Greek:** Native  
**English:** Proficient (C2, University of Michigan)  
**German:** Intermediate (B2, Greek State Certificate)