

Matheos Giakoumi

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EDUCATION

BS Mechanical Engineering and Materials Science (Excellent - Highest Honors)

2017 – 2021

Department of Mechanical Engineering and Materials Science and Engineering / Faculty of Engineering and Technology / Cyprus University of Technology

- **Dissertation Topic (10/10):** “Reactive gas systems with simulated and non-limiting controlled equilibrium” (Supervised by Dr. Nicos Angastiniotis).
- **Honors and Awards:**
 - Honorary distinction and admission to the department as the first excellent student (2017). Overall mark: 19.6/20. First national prize in the Pancyprian Examination of Technology course (19.875/20).
 - Honorary distinction for the 1st highest grade among the department’s undergraduates for all the academic years enrolled (2017 – 2021)
- **Scholarship:** The program was fully funded (Fees & Stipend) by the [Cyprus State Scholarship Foundation](#).

MS Natural Gas in Energy Transition (Excellent)

2021 – 2022

Department of Civil and Environmental Engineering / Faculty of Engineering / University of Cyprus

- **Dissertation Topic (10/10):** “A field development plan based on current technologies, infrastructure and information – The Frigg Field Development Plan (FDP) revisited”. (Supervised by Dr. Panos Papanastasiou & Dr. Nikolas Papadimitriou)
- **Scholarship:** The program was fully funded (Fees & Stipend) by the [Hydrocarbons Service from Ministry of Energy Commerce and Industry of Cyprus](#)

Master in Energy and Environmental Management and Economics – MEDEA

2022 – 2023

Department of Economics and Management & ENI Scuola Mattei / University of Pavia

- **Dissertation Topic (100/100):** “Smart Contracts in Well Operations” (Novelli Award)
- **Honors and Awards:**
 - Honorary distinction for the 1st highest grade among the program (Managing Technical Assets).
 - Luciano Novelli Award: Award given for the best dissertation in the program.
- **Scholarship:** The program was fully funded (Fees & Stipend) by [Eni SpA](#).

PUBLICATIONS

Giakoumi, M., Stephanou, PS., Kapnisis, KK., Anayiotos, A. “On the Development of Physiologically Based Toxicokinetic Models (PBTk) for Cardiovascular Implants”. Regulatory Toxicology and Pharmacology.

In Press

Giakoumi, M., Konstantinou, C., Ehlig-Economides, C., Papanastasiou, A. “A Framework for Carbon Dioxide Injection in Gas Reservoirs with Water Influx Based on the Material Balance Approach ”

Under Review

CONFERENCE PRESENTATIONS

Konstantinou, C., **Giakoumi, M.**, Tsangarides, A., Iosif, G., Stasis, N., Finiris, S., Georgiou, V., Panagiotou, F. C., Papadimitriou, N., Papanastasiou, P. (2023). “Lessons learned from the Frigg Field: Applicability of the findings in the Eastern Mediterranean analogues. Presentation at the AAPG Europe Regional Conference, Larnaca, Cyprus, 23-24 May 2023.

RESEARCH EXPERIENCE

TET - Fondazione Eni Enrico Mattei (**FEEM**)

Sep 23 – Now

- Modelling Energy Transition in the Italian Electricity and Gas System via [PLEXOS](#).
- Development of Economic Models for Carbon Capture Storage and Hydrogen Storage for the Analysis of the National Strategies regarding the Energy Transition.

GREE - University of Cyprus (**UCY**)

June 23 – Now

- Mathematical and Computational Modelling of Geo-Energy Processes.
- Fluid Injection in Unconsolidated formations for Geo Energy and Environmental Applications.
- FLINUGEE project (EXCELLENCE/0421/0456), funded by the Cyprus Research and Innovation Foundation.

BioLISYS - Cyprus University of Technology (**CUT**)

July 20 – Now

- Toxicokinetic Modelling – Model Parameterization and Optimization of ODEs & PDEs.
- Contributor to patent – International Application Number: PCT/EP2022/064468.
- Supervision of graduate students' theses.
- [“NITOXILICO”](#) project (POST-DOC/0916/0237), funded by the Cyprus Research and Innovation Foundation.

Material Thermodynamics Laboratory – Cyprus University of Technology (**CUT**)

July 21 – July 22

- Thermodynamic control of reactive spontaneous systems.
- Simulation and Fabrication of Amorphous Tungsten Structures for Material Science Applications.
- Supervision of undergraduate students' theses.

DEVTECH&CP – Cyprus University of Technology (**CUT**)

Oct – Dec 19

- UV-VIS absorption of organic nanomaterials (OLEDs, OPVs).
- Deposition techniques: Spin Coating, Doctor Blade, Inkjet Printing.
- Characterization techniques: Optical Microscope.

RUNMS – Cyprus University of Technology (**CUT**)

July – Aug 18

- Fabrication & Characterization of Supercapacitors.
- Characterization techniques:
 - X-ray powder diffraction (XRD): RIR – Quantitative phase analysis.
 - Scanning Electron Microscopy (SEM).

TEACHING EXPERIENCE

Lecturer, [Master on Natural Gas in Energy Transition](#), University of Cyprus ([UCY](#))

Sep 23 – May 24

- Sole Lecturer in the graduate course Petroleum Economics (NGE 502).
- Co – Lecturer in the graduate course Natural Gas Production in Energy Transition (NGE 501).

University Tutor, [Center of Student Development](#), Cyprus University of Technology ([CUT](#))

Sep 18 – Dec 22

- Assigned for tutoring of the following undergraduate courses: Heat and Mass Transfer (MEM 323), Control Systems (MEM 322), Dynamic Systems (MEM 324), HVAC (MEM 423), Energy Resources (MEM 426), Industrial Methods (MEM 421).

Mathematics Tutor for High School Students

Sep 19 – June 22

- Preparing students for the Pancyprian examination of mathematics.

OTHER SKILLS

- **IT/Software:** MATLAB & Simulink, Solidity, JavaScript, Petrel, OriginLab, SolidWorks, AutoCAD, Python, C++.
- **Languages:** Greek (Native), English (Professional), Italian (Intermediate).
- **Hobbies & Interests:** Full Stack Development (proficient at Back End Development and beginner at Front End Development), Web3 applications (developing and deploying smart contracts on the Ethereum blockchain), learning and developing algorithms for optimization, exploring geopolitics of energy, watching and playing basketball.

REFERENCES

Professor Andreas Anayiotos

Advisor – NITOXILICO

[BioLISYS Group leader](#)

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Assistant Professor Nicos Angastiniotis

Advisor – Undergraduate Thesis & Material Thermodynamics Laboratory

[Material Thermodynamics Laboratory Manager](#)

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Dr. Konstantinos Kapnisis

Advisor – NITOXILICO

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Assistant Professor Pavlos S. Stephanou

Advisor – NITOXILICO

[Thermodynamics and Transport Phenomena Laboratory \(T²PL\)](#)

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Professor Panos Papanastasiou

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Dr. Nikolas Papadimitriou

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