

# Curriculum Vitae

## Personal Information:

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## Education

- 2018-2024
- PhD studies in Biomedical Optical Imaging at the Department of Materials Science and Engineering (DMSE) at University of Crete (UoC).
- 2014 – 2017
- Master in Materials Science in University of Crete. Grade 8,5/10
- 2010- 2013
- Bachelor in Materials Science (Degree 7,7/10, 2<sup>nd</sup> in my year).
    - Courses were completed within 3 years (5 years average).

## Work

### Experience

- 1/2021-  
6/2024
- Laboratory for Bio-photonics and Molecular Imaging (LBMI) in the Institute of Electronic Structure and Laser (IESL), at Foundation of Research and Technology (FORTH). European funded program “Dynamic”. Project manager Dr. G. Zacharakis.
- 1/2018-  
12/2020
- Laboratory for Bio-photonics and Molecular Imaging (LBMI), European funded program “Biolmaging-Gr”. Project manager Dr. G. Zacharakis.
- 5/2015-  
7/2017
- BEC lab in IESL for a project funded by the European Space Agency (ESA). Project managers Dr. Wolf von Klitzing and Prof. Dimitris Papazoglou.

## Teaching Experience

- 2/2021-  
6/2021
- Teaching assistant, undergraduate lab of Physics II, DMSE, UoC.
- 2/2018-  
6/2018
- Teaching assistant, undergraduate lab of Physics II, DMSE, UoC.
- 9/2016-  
12/2016
- Teaching assistant, undergraduate course of General Mathematics, DMSE, UoC.
- 3/2016-  
7/2016
- Teaching assistant, undergraduate lab of Physics II, DMSE, UoC.

## Distinctions/Scholarships

- 2020
- Best speech award in section “Imaging Technologies”, at European Molecular Imaging Meeting 2020, virtual.
- 2020
- Darema Grant (Institute of International Education)
- 2019- 2020
- Fulbright program for Doctorate Students.
- 2010- 2011
- Beneficiary of Soykoyli Scholarship (Department of Materials Science and Engineering).

## Publications

### Peer Review Journals

- George J Tservelakis, Michalis Pavlidis, Athanasios Samaras, Georgios D Barmparis, **Kostas G Mavrikis**, Ioannis Draganidis, Athanasios Oikonomou, Eleftheria Fanouraki, Giorgos P Tsironis, Giannis Zacharakis, '*Hybrid confocal fluorescence and photoacoustic microscopy for the label-free investigation of melanin accumulation in fish scales*', Scientific Reports, 12, 1,7173 (2022). DOI: [10.1038/s41598-022-11262-0](https://doi.org/10.1038/s41598-022-11262-0)
- George J. Tservelakis, **Kostas G. Mavrikis**, Nikitas Kakakios, and Giannis Zacharakis, '*Full image reconstruction in frequency-domain photoacoustic microscopy by means of a low-cost I/Q demodulator*', Optics Letters, 46, 4718-4721 (2021). DOI: [10.1364/OL.435146](https://doi.org/10.1364/OL.435146)
- George J. Tservelakis, **Kostas G. Mavrikis**, Danai Pantazopoulou, Eleni Lagoudaki, Efstathios Detorakis, and Giannis Zacharakis, '*Hybrid autofluorescence and photoacoustic label-free microscopy for the investigation and identification of malignancies in ocular biopsies*', Optics Letters, 45, 5748-5751 (2020). DOI: [10.1364/OL.403435](https://doi.org/10.1364/OL.403435)
- G. Drougakis, **K. G. Mavrikis**, S. Pandey, G. Vasilakis, K. Poullos, D. G. Papazoglou and W. von Klitzing, '*Precise and robust optical beam steering for space optical instrumentation*', CEAS Space Journal volume 11, pages 589–595 (2019), DOI: [10.1007/s12567-019-00271-x](https://doi.org/10.1007/s12567-019-00271-x).
- M. Mikis, S. Pandey, **K. G. Mavrikis**, G. Drougakis, G. Vasilakis, D. G Papazoglou, and W. von Klitzing, '*Simple Precision Measurements of Optical Beam Sizes*', Applied Optics, 57 (2018), 9863-67, DOI: [10.1364/AO.57.009863](https://doi.org/10.1364/AO.57.009863).
- P. Saurabh, H. Mas, G. Drougakis, **K. G. Mavrikis**, M. Mylonakis, G. Vasilakis, and W. von Klitzing, '*Antireflection Coated Semiconductor Laser Amplifier for Bose-Einstein Condensation Experiments*', AIP Advances, 8 (2018), 095020, DOI: [10.1063/1.5047839](https://doi.org/10.1063/1.5047839).

### Thesis

- **Kostas G. Mavrikis**, '*Novel optical breadboard beam steering techniques for space applications*', master thesis. [link](#)

## Conferences

### Presentations

- **Konstantinos G. Mavrikis**, Minghua Zhuge, Puting Dong, Kai-Chih Huang, Jie Hui, Ji-Xin Cheng, "*Investigating antibiotics in cells with pre-resonance Stimulated Raman Scattering hyperspectral microscopy*", European Conferences on Biomedical Optics 2021, virtual.
- **Konstantinos G. Mavrikis**, Minghua Zhuge, Puting Dong, Kai-Chih Huang, Jie Hui, Ji-Xin Cheng, "*Pre-Resonance hyperspectral stimulated Raman scattering microscopy for monitoring Amphotericin B distribution*", European Molecular Imaging Meeting 2020, virtual.
- **Konstantinos G. Mavrikis**, George Tservelakis, Danai Pantazopoulou, Eleni Lagoudaki, Efstathios Detorakis, Giannis Zacharakis, "*Hybrid fluorescence and photoacoustic label-free microscopy for the investigation and identification of malignancies in ocular biopsies*", European Molecular Imaging Meeting 2020, virtual.

### Posters

- **Kostas G Mavrikis**, Nikitas Kakakios, George Tservelakis and Giannis Zacharakis, "*A novel method for image reconstruction in optical-resolution frequency-domain photoacoustic microscopy*", European Molecular Imaging Meeting 2022, Thessaloniki, Greece.

- **K. G. Mavrakis**, G. J. Tserevelakis and G. Zacharakis, "*Hybrid fluorescence and photoacoustic label-free microscopy for the investigation and identification of malignancies in ocular biopsies*", Boston University Photonics Conference 2019, Boston, USA.
- **K. G. Mavrakis**, G. J. Tserevelakis, D. Pantazopoulou, E. Karamouzi, E. Detorakis and G. Zacharakis, "*Combined photoacoustic and fluorescence label-free microscopy for the ex vivo investigation of pigmented ocular lesions*", Imaging Technology Summer Workshop 2019, Chania, Greece.
- **K. G. Mavrakis**, G. J. Tserevelakis and G. Zacharakis, "*Development of a multiparametric label free Imaging system*", Biophotonics and Imaging Graduate Summer School 2018, Galway, Ireland.

## Languages

Mother tongue      • Greek

	English	French
Oral expression	Excellent	Fair
Written expression	Excellent	Fair
Oral comprehension	Excellent	Fair
Written comprehension	Excellent	Fair

- English      • Owner of certificates "Proficiency of Cambridge" and "Proficiency of Michigan" from the equivalent universities.
- French      • Owner of certificate "Delf 1" (Ενότητα A1, A2, A3, A4, A6) from the French Institute.

## Computer Skills

- Optical simulation software Zemax (Intermediate)
- Digital drawing software Autocad/Fusion(Intermediate).
- Mathematical computation software Origin, Mathematica, Matlab.
- Software development in Labview NI.

**Driving License**      • Owner since 23/9/2003

**References**      • Please contact me for references.

- Individual Characteristics**
- Team spirit
  - Patience
  - Placidity
  - Responsible
  - Confidence
  - Diligence
  - Focusing on solutions rather on problems.

**Personal Interests**      • Cinema, Sports, Chess, science.