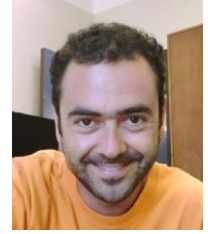


Date of birth: 03 November 1978
Nationality: Greek
Married, 2 boys (twins)



Keywords: *Nanofabrication, structural and electronic characterization, solid state physics, graphene and 2D systems, quantum Hall effect, magnetotransport, international profile.*

Education

- 2005-2009 **Brown University, School of Engineering** **Providence, RI, USA**
Doctorate of Philosophy in Engineering, may 2009.
Thesis : *"Ultrathin Ge/high- κ dielectric structures for end-of-roadmap devices and other applications."*
Advisor: A. Zaslavsky, Readers: J. R. Beresford, R. Zia.
- 2003-2005 **Brown University, School of Engineering** **Providence, RI, USA**
Master of Science in Engineering, may 2005.
- 1996-2001 **National Technical University of Athens** **Athens, Greece**
School of Electrical and Computer Engineering
Diploma degree (5-year, MSc equivalent) in Electrical and Computer Engineering, July 2001.

Experience (Research)

- 2016-present **Paul Scherrer Institute** **Villigen, Switzerland**
Laboratory for Micro and Nanotechnology
Scientific Project Coordinator/Researcher
✚ Scientific project coordination within the NFFA framework
✚ Advanced nanolithography techniques
- 2015-2016 **Paris Observatory** **Paris, France**
Laboratory for Studies of Radiation and Matter in
Astrophysics and Atmospheres (LERMA)
Research Engineer
(work conducted 100% at the Laboratory for Photonics and Nanostructures, CNRS-LPN)
✚ Development and nanofabrication of THz detector circuits for space applications.
- 2009-2014 **National Center for Scientific Research (CNRS)** **Marcoussis, France**
Laboratory for Photonics and Nanostructures (LPN)
Postdoctoral Researcher
✚ Nanofabrication and transport measurements of graphene devices, quantum Hall effect.
✚ Development, nanofabrication, and characterization of a state-of-the-art electrical resistance standard based on the quantum Hall effect in graphene.
✚ Design, fabrication, and characterization of suspended two dimensional electron-gas structures (electronic and thermodynamic applications, NEMS).
✚ Nanofabrication of electromagnetic antidote lattices in GaAs.
✚ Fabrication and characterization of a magnetic domain wall motion sensor (2DEG).
- 2003-2009 **Brown University, School of Engineering** **Providence, RI, USA**
Research Assistant
✚ Design and fabrication of all-epitaxial ultrathin germanium-on-insulator (GeOI) devices. Transport measurements and characterization as a function of temperature.
✚ Physics of ambipolar and interband tunneling FET transistors.
✚ Modelling of nanoscale CMOS for probabilistic computation in the presence of noise.

Summer 2007	IBM T. J. Watson Research Center Internship	Yorktown Heights, NY, USA
	<ul style="list-style-type: none"> ✚ Design of a mass spectrometry measurement set-up for in-situ studies of photocatalytic oxidation on nanometer thick oxides in high vacuum. ✚ In-situ experiments on the photocatalytic activity on ultrathin titanium oxide films. 	
Summer 2006	IBM T. J. Watson Research Center Internship	Yorktown Heights, NY, USA
	<ul style="list-style-type: none"> ✚ Epitaxial growth of single crystal Ge on crystalline La-Y oxide on (111) Si. 	
2000-2002	National Technical University of Athens Microelectronic Circuit Design Group Research Associate	Athens, Greece
	<ul style="list-style-type: none"> ✚ Characterization and modelling of 0.15 μm CMOS transistors. ✚ DC, CV, and RF measurements on deep submicron CMOS. 	

Experience (Teaching)

2013-2016	Université Paris Diderot – Paris 7	Paris, France
	<ul style="list-style-type: none"> ✚ Problem sections (travaux dirigés) for Physics (Mechanics). ✚ Student supervision: 2 Master students (Laboratory for Photonics and Nanostructures). 	
2003-2009	Brown University, School of Engineering	Providence, RI, USA
	<ul style="list-style-type: none"> ✚ Problem and lab sections: Analysis and design of electronic circuits; Introduction to semiconductors and semiconductor electronics; Electricity and magnetism. ✚ Student supervision: 3 PhD students (clean room, magnetotransport, cryogenics). 	

Skills

Nanofabrication

- ✚ Extensive experience in nanofabrication and clean room work since 2003.
- ✚ Very experienced in electron beam lithography (EBL) for nanoscale patterning and photolithography (autonomous user of the Vistec EBP 5000+ EBL system).
- ✚ Vacuum deposition techniques: Electron beam evaporation, sputtering, PECVD, ALD.
- ✚ Dry and wet etching techniques.
- ✚ Experience with ultrahigh vacuum (UHV) technology and systems and in cryogenics.
- ✚ Experience in molecular beam epitaxy (MBE).
- ✚ Wafer cleaning/cleaving techniques, dry/wet oxidation, annealing, wedge bonding, etc.

Material/Device Characterization

- ✚ Scanning electron microscopy (SEM).
- ✚ AFM, profilometry, ellipsometry, Raman spectroscopy.
- ✚ Electronic measurements, magnetotransport (superconducting magnet system, 1.3-300K).
- ✚ Hall effect characterization.

Computer Skills

- ✚ Very experienced in MATLAB and LabVIEW.
- ✚ Tanner EDA L-Edit Layout Editor and GenISys BEAMER software for e-beam lithography.
- ✚ Programming languages: C/C++.
- ✚ Software packages: COMSOL, Origin, Silvaco packages, IC-CAP modeling software, SPICE
- ✚ Other: UNIX, LaTeX

Languages

- ✚ Greek (native), English (proficient), French (upper intermediate), Italian (intermediate).

Administrative Skills

- ✚ Scientific project management

Distinctions, Administrative Experience, and Interests

- ✚ Reviewer, ACS Nano Letters.
- ✚ Brown University prospective student interviewer, 2014-present.
- ✚ Dean's Fellowship, Brown University, 2003-2004; Efstratiou Fellowship, Greece 1996-2001.
- ✚ Award of excellence, Nationwide Chemistry Contest, Hellenic Union of Chemists, 1997.
- ✚ Microcontrollers, guitar, cooking, skiing, traveling, painting, electronic projects (drones).

Publications

14 international journal articles ; 1 book chapter ; several papers in conference proceedings.

- ✚ B. A. Piot, W. Desrat, D. K. Maude, D. Kazazis, A. Cavanna, and U. Gennser, "*Disorder-induced stabilization of the quantum Hall ferromagnet*", Phys. Rev. Lett. **116**, 106801 (2016).
- ✚ R. Ribeiro-Palau, F. Lafont, J. Brun-Picard, D. Kazazis, A. Michon, F. Cheynis, O. Couturaud, C. Consejo, B. Jouault, W. Poirier, and F. Schopfer, "*Quantum Hall resistance standard in graphene devices under relaxed experimental conditions*", Nature Nanotechnol. **10**, 965 (2015).
- ✚ F. Lafont, R. Ribeiro-Palau, D. Kazazis, A. Michon, O. Couturaud, C. Consejo, T. Chassagne, M. Zielinski, M. Portail, B. Jouault, F. Schopfer, and W. Poirier, "*Quantum Hall resistance standard based on graphene grown by chemical vapor deposition on silicon carbide*", Nature Commun. **6**, 6806 (2015).
- ✚ J. Schluck, S. Fasbender, T. Heinzl, K. Pierz, H. Schumacher, D. Kazazis and U. Gennser, "*Snake orbit commensurability resonances in magneto-electric lateral superlattices*", Phys. Rev. B **91**, 195303 (2015).
- ✚ B. Jabakhanji, D. Kazazis, W. Desrat, A. Michon, M. Portail, and B. Jouault, "*Magneto-resistance of disordered graphene: from low to high temperatures*", Phys. Rev. B **90**, 035423 (2014).
- ✚ B. Jabakhanji, A. Michon, C. Consejo, W. Desrat, M. Portail, A. Tiberj, M. Paillet, A. Zahab, F. Cheynis, F. Lafont, F. Schopfer, W. Poirier, F. Bertran, P. Le Fevre, A. Taleb-Ibrahimi, D. Kazazis, J. Camassel, and B. Jouault, "*Tuning the transport properties of graphene films grown by CVD on SiC(0001) : effect of in-situ hydrogenation and annealing*", Phys. Rev. B **89**, 085422 (2014).
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- ✚ D. Kazazis, E. Bourhis, J. Gierak, O. Bourgeois, T. Antoni, and U. Gennser "*Suspended two-dimensional electron and hole gases*", Proceedings of the 31st International Conference on the Physics of Semiconductors (ICPS 2012), AIP Conf. Proc. **1566**, 249 (2013).
- ✚ E. Pallecchi, M. Ridene, D. Kazazis, C. Mathieu, F. Schopfer, W. Poirier, D. Maily, and A. Ouerghi, "*Observation of the quantum Hall effect in epitaxial graphene on SiC(0001) with oxygen adsorption*", Appl. Phys. Lett. **100**, 253109 (2012).
- ✚ D. Kazazis, B. Schuler, M. Granada, U. Gennser, G. Faini, M. Cerchez, and T. Heinzl, "*Sensing domain wall pinning in the longitudinal magneto-resistance of a two-dimensional electron gas*", Superlattice Microst. **52**, 11 (2012).
- ✚ W. Van Den Daele, S. Cristoloveanu, E. Augendre, C. Le Royer, J.-F. Damlencourt, D. Kazazis, and A. Zaslavsky, "*GeOI as a Platform for Ultimate Devices*" in *Future Trends in Microelectronics: From Nanophotonics to Sensors and Energy*, edited by S. Luryi, J. Xu, and A. Zaslavsky, John Wiley and Sons, Inc., Hoboken, New Jersey (2010).
- ✚ F. C. Sabou, D. Kazazis, R. I. Bahar, J. Mundy, W. Patterson, and A. Zaslavsky, "*Markov Chain Analysis of Thermally Induced Soft Errors in Nanoscale CMOS Circuits*", IEEE Trans. Dev. Mater. **9**, 494 (2009).
- ✚ D. Kazazis, S. Guha, N. A. Bojarczuk, Z. Zaslavsky, and H.-C. Kim, "*Substrate Fermi Level Effects in Photocatalysis on Oxides: Properties of Ultrathin TiO₂/Si Films*", Appl. Phys. Lett. **95**, 064103 (2009).
- ✚ D. Kazazis, P. Jannaty, A. Zaslavsky, C. Le Royer, C. Tabone, L. Clavelier, and S. Cristoloveanu, "*Tunneling Field-Effect Transistor with Epitaxial Junction in Thin Germanium-on-Insulator*", Appl. Phys. Lett. **94**, 263508 (2009).
- ✚ D. Kazazis, "*Ultrathin Ge/high- κ dielectric structures for end-of-roadmap devices and other applications*", Ph.D. Thesis, Brown University, Providence, RI, May 2009.
- ✚ H. Li, J. Mundy, W. Patterson, D. Kazazis, A. Zaslavsky, and R. I. Bahar, "*Thermally Induced Soft Errors in nanoscale CMOS circuits*", IEEE International Symposium on Nanoscale Architectures, (NANOSARCH 2007), pp. 62-69 (2007).

- ✚ D. Kazazis, A. Zaslavsky, E. Tutuc, N. A. Bojarczuk, and S. Guha, “*Negative Differential Resistance in Ultra-Thin Ge-On-Insulator FETs*”, *Semicond. Sci. Technol.* **22**, S1 (2007).
- ✚ H. Li, J. Mundy, W. Patterson, D. Kazazis, A. Zaslavsky and R. I. Bahar, “*A Model for Soft Errors in the Subthreshold CMOS Inverter*”, *Workshop on System Effects of Logic Soft Errors (SELSE 2)* (2006).
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- ✚ D. M. Binkley, M. Bucher, and D. Kazazis, “*Guiding the Designer in Optimizing Analog CMOS Design*”, *Proceedings of the European Conference on Circuit Theory and Design (ECCTD)* , pp. I-8 – I-13, (2003).
- ✚ M. Bucher, D. Kazazis, F. Krummenacher, D. Binkley, D. Foty, Y. Papananos, “*Analysis of Transconductances at All Levels of Inversion in Deep Submicron CMOS*”, *9th Int. Conf. on Electronics, Circuits and Systems (ICECS 2002)*, pp. 1183-1186, (2002).
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- ✚ D. Kazazis, “*Characterization and Modeling of the MOS Transistor over the Continuum of Inversion Level and Channel Length*”, *Diploma Thesis, NTUA, Athens, Greece, July 2001.*