

Curriculum Vitae

Argyrios T. Dellis

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Personal information

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Date of birth	19 May 1982
Gender	Male
Mother language(s)	Greek (native), English, German

Education

Dates	2008 - present
Title of qualification	PhD student
Principal subjects	Thesis subject:
Name and type of organisation	Physics Department, University of Crete
Dates	2005 - 2008
Title of qualification	Master of Science
Principal subjects	Graduate Studies in "Microelectronics and Optoelectronics" <i>Thesis Title: Construction of a Cesium Magneto-optical Trap and Non-destructive Temperature Measurement Using Spin Polarization Fluctuations</i>

supervisor: Prof I.Kominis**Name and type of organisation** Physics Department, University of Crete**Dates** 2000 - 2005**Title of qualification** Bachelor of Science in Physics**Principal subjects** Thesis Title: *Design and Development of Weak Magnetic Field and First Order Gradient Coils*supervisor: Prof I.Kominis**Name and type of organisation** Physics Department, University of Crete**Dates** 2004**Title of qualification** Summer School**Principal subjects** Solid State Physics**Name and type of organisation** Physics Department, University of Crete**Dates** 2006**Title of qualification** Summer School**Principal subjects** Quantum Physics and Quantum Information**Name and type of organisation** Physics Department, University of Crete**Dates** 2011**Title of qualification** Erasmus Study-abroad**Principal subjects** NMR techniques**Name and type of organisation** Chemistry Department, Leiden University, Leiden, the Netherlands

Training

- Diploma Thesis** During my Diploma Thesis I designed a system of magnetic coils for the generation of weak magnetic fields (3 homogeneous components and five independent gradients) inside a magnetic shielding. I calibrated the system of coils with a fluxgate magnetometer and a lock-in amplifier. The goal of manufacturing this system of eight coils was the elimination of the remaining magnetic fields inside the magnetic shield and the application of magnetic fields in the μG regime.
- Master Thesis** During my Master Thesis I developed the first experiment of atom cooling and trapping in the laboratory of Quantum Technology in the Institute of Electronic Structure and Laser in the Foundation for Research and Technology-Hellas. In particular I developed a Magneto-Optical Trap of Caesium (Cs) atoms. I worked on the development of a new non-destructive method for measuring the temperature of the Magneto-Optical Trap, through spin-noise spectroscopy.
- PhD Thesis** My PhD thesis has as main goal the study of quantum measurement effects in spin-selective radical-ion-pair reactions.

Teaching Assistance

- 2005** Advanced Physics Laboratory I (winter semester – spring semester)
- 2006** Physics Lab II (Electromagnetism) (winter semester – spring semester)
- 2007** Physics Lab III (Optics) (winter semester)
- 2008** Physics Lab III (Optics) (spring semester)

Technical Qualification

Laser	Design and build of Extended Cavity Diode Lasers Design and build of Tapered Amplifier setup
Analog Electronics	Photodiode Amplifiers Low Noise Transimpedance Amplifier Current Sources PID feedback circuits Low Noise Signal Adder Low Noise Differential Amplifier
Vacuum Techniques	High and Ultra High Vacuum techniques

Computer Qualification

Programming & Data analysis	Mathematica	Fortran
	Matlab(basic knowledge)	Python(basic knowledge)
Design & Modeling	Origin	IGOR Pro
	Autodesk Inventor	Adobe Illustrator
Word Processing	MS-Office	LaTeX

Awards

2004	6 th award at the Summer School of Advanced Physics of the Physics Department, University of Crete.
2005	Manasaki Graduate Scholarship for Excellence in Graduate Studies. University of Crete.

Conferences

- 4 **Spin Chemistry Meeting** (August 2009, St. Catharines Canada)
Poster: “*Explanation of Deuteration Effects in Radical-Ion-Pair Reactions*”
(A. T. Dellis and I. K. Kominis)
- 3 **Quantum measurement and Chemical Spin Dynamics** (February 2010, Leiden University, Netherlands)
- 2 **Spin Chemistry Meeting** (May 2011, Noordwijk in The Netherlands)
Poster: “*Photon Statistics as an experimental test discriminating between theories of spin-selective radical-ion-pair reactions*”
(A. T. Dellis and I. K. Kominis)
- 1 **ECAMP 9** (May 2007, Heraklion, Greece)
Poster: “*Quantum random number generator based on spin noise*”
(G. E. Katsoprinakis, A. T. Dellis, M. Polis and I. K. Kominis)

Publications

- 5 **The quantum Zeno effect immunizes the avian compass against the deleterious effects of exchange and dipolar interactions**
A.T. Dellis, I.K. Kominis, *BioSystems* (2011), doi:10.1016/j.biosystems.2011.11.007
- 4 **Photon statistics as an experimental test discriminating between theories of spin-selective radical-ion-pair reactions**
A. T. Dellis, I. K. Kominis, arXiv:1110.2298 (2011).
- 3 **Coherent Triplet Excitation Suppresses the Heading Error of the Avian Compass**
G. E. Katsoprinakis, A. T. Dellis and I. K. Kominis, *New J. Phys.* 12, 085016 (2010).
- 2 **Quantum random number generator based on spin noise**
G. E. Katsoprinakis, M. Polis, A. Tavernarakis, A. T. Dellis and I. K. Kominis, *Phys. Rev. A* 77, 054101 (2008).
- 1 **Measurement of transverse spin-relaxation rates in a rubidium vapor by use of spin-noise spectroscopy**
G. E. Katsoprinakis, A. T. Dellis and I. K. Kominis, *Phys. Rev. A* 75, 042502 (2007).