

# George Vantarakis

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## CONTACT DETAILS

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## PERSONAL INFORMATION

Birth date and place: 29 October 1980, Heraklion, Greece  
Nationality: Greek  
Marital status: engaged  
Military Service: completed (September 2011 - May 2012)

## EDUCATION

2006-today PhD candidate  
*Department of Materials Science and Technology, University of Crete, Greece*  
*Thesis title: "Computer simulations of semiconducting nanomaterials"*  
*Supervisors: professor P. C. Kelires,*  
*associate professor G. Kopidakis,*  
*assistant professor I. Remediakis*

2007-2010 Research fellow at the *Department of Mechanical Engineering and Materials Science and Engineering, Cyprus University of Technology, Cyprus*

2003-2005 M.Sc. in Physics  
*Department of Physics, University of Crete, Greece*

1998-2003 B.Sc.Ed. in Physics, grade: 8.08/10.00  
*Department of Physics, University of Crete, Greece*

## GRANTS / SCHOLARSHIPS

- by the National Scholarships Foundation of Greece for undergraduate study (rank 2nd among peer students of second undergraduate year)
- by the National Scholarships Foundation of Greece for enrolling the Department of Physics at rank 4th

## RESEARCH INTERESTS

- continuous-space Monte Carlo simulations of crystalline semiconducting materials, at an atomistic level
- quantum dots (nanoislands) and nanowires
- contribution to Fortran code for Monte Carlo simulations: implementation of the MEAM (Modified Embedded Atom Method) empirical potential

## PUBLICATIONS

- G. Vantarakis, I. N. Remediakis, P. C. Kelires  
*"Ordering mechanisms in epitaxial SiGe nanoislands"*  
*Physical Review Letters*, **108**, 176102 (2012)
- G. Vantarakis, C. Mathioudakis, G. Kopidakis, C. Z. Wang, K. M. Ho, P. C. Kelires  
*"Interfacial disorder and optoelectronic properties of diamond nanocrystals"*  
*Physical Review B*, **80**, 045307 (2009)

## CONFERENCES / WORKSHOPS / SUMMER SCHOOLS

### Oral presentations

- "Ordering in epitaxial SiGe quantum dots",  
[29th Panhellenic Conference on Solid-State Physics and Materials Science](#)  
Athens, Greece, 22-25 September 2013
- "Facet-stress-driven ordering in Si-Ge nanoislands",  
[E-MRS 2008 Spring Meeting](#)  
Strasbourg, France, 26-30 May 2008
- "Equilibrium structure and ordering at SiGe nanoisland facets",  
[4th International Workshop on "Nanosciences & Nanotechnologies" \(NN07\)](#)  
Thessaloniki, Greece, 15-18 July 2007

### Poster presentations

- "Facet-Stress-Driven Ordering in SiGe Nanoislands",  
[23rd Panhellenic Conference on Solid-State Physics and Materials Science](#)  
Athens, Greece, 23-26 September 2007

### Attendance

- [27th Panhellenic Conference on Solid-State Physics and Materials Science](#)  
Limassol, Cyprus, 18-21 September 2011
- "[Coarse-graining of many-body systems: analysis, computations and applications](#)" workshop,  
organized by the Department of Applied Mathematics, University of Crete and the "Archimedes  
Center for Modeling, Analysis and Computation (ACMAC)"  
Heraklion, Crete, Greece, 27 June - 1 July 2011
- [6th Specialist Meeting on Amorphous Carbon \(SMAC\)](#)  
Heraklion, Crete, Greece, 10-13 September 2006
- [Summer School in Computational Physics](#)  
Department of Physics, University of Crete, Greece  
4-12 July 2005
- Summer School in Advanced Physics  
Department of Physics, University of Crete, Greece  
1-26 July 2002

## SKILLS

### Computer skills

Operating systems: Linux (Ubuntu), Microsoft Windows  
Programming languages: Fortran 77, Unix bash-shell scripting, Mathematica  
Office applications: L<sup>A</sup>T<sub>E</sub>X, Microsoft Office (Word, Excel, Powerpoint), OpenOffice/LibreOffice  
Other software: xmgrace, xmakemol, xfig

### Presentation skills

- presentations in international scientific conferences,  
*see section* "CONFERENCES / WORKSHOPS / SUMMER SCHOOLS"
- presentations in regular [meetings of the "Computational Materials Science Group"](#) of the  
Department of Materials Science and Technology, University of Crete

## Languages

Greek native language  
English First Certificate Exam, Cambridge University (Level B2 of **CEFR**)  
German Grundstufe, Goëthe Institut (Level B1 of **CEFR**)

## TEACHING EXPERIENCE

- Teaching Assistant in Department of Materials Science and Technology, University of Crete
  - Fall 2012 Materials I
  - Fall 2010 Laboratory Physics I: Mechanics and Heat
  - Fall 2006 Solid State Physics, Introduction
- Teaching Assistant in Department of Mechanical Engineering and Materials Science and Engineering, Cyprus University of Technology
  - Spring 2009 Programming Principles (Fortran)
- Private lessons to students with learning difficulties at the Department of Mechanical Engineering and Materials Science and Engineering, Cyprus University of Technology
  - Fall 2009 Calculus I
  - Spring 2010 Calculus II
- Teaching Assistant in Department of Physics, University of Crete
  - Spring 2000 Programming in Fortran 77
- Private lessons of Physics, Mathematics and Chemistry to students of secondary education

## HOBBIES and INTERESTS

Pilates training, Cycling, Argentine Tango dancing (former member of the tango team of the Dancing Group of University of Crete)