

Stamatis Stamatiadis

Department of Materials Science and Technology,
University of Crete,
P. O. Box 2208, GR-710 03 Heraklion, Greece

Telephone : (+30) 2810 394284

E-mail : stamatis@materials.uoc.gr

Professional webpage :

<http://www.materials.uoc.gr/en/general/personnel/stamatis.html>

PERSONAL DATA

Home Address : Sbokou 76, GR-713 05 Heraklion, Greece
Telephone : (+30) 2810 360049
Date and place of birth : January 09, 1971, Thessaloniki, Greece
Nationality : Greek
Marital Status : Married

EDUCATION

09/1988–06/1994: “Ptychion” (B.Sc.) from the Physics Department, Aristotle University of Thessaloniki, Greece. Grade: Excellent (8.81/10).

09/1994–01/1997: Master’s Degree in General Physics from the Department of Physics, University of Crete, Greece. The Master comprised advanced courses on Classical Mechanics, Quantum Mechanics, Mathematical Physics, Many-body Theory, Statistical Physics, and written and oral Qualifying Examinations.

01/1997–04/2000 and **01/2002–04/2003:** Ph.D. in Physics by the Department of Physics, University of Crete, Greece. Interrupted for compulsory military service.

Dissertation Title: “*Saddle–Node Bifurcations in the Vibrational Spectra of Small Polyatomic Molecules*”.

The dissertation provides significant evidence on the correspondence of the quantum dissociation or isomerization states of a molecular compound to the families of saddle–node periodic orbits of the corresponding classical system.

Dissertation Advisor: Prof. S. C. Farantos, Chemistry Department, University of Crete.

The full document is available at <http://elocus.lib.uoc.gr/dlib/b/e/a/metadata-dlib-2003stamatiadis.tkl?lang=en>.

PROFESSIONAL STUDIES

10/1998–12/1998: Training visitor under the “Training and Research on Advanced Computing Systems (TRACS)” programme organized by Edinburgh Parallel Computing Centre (EPCC). I have attended courses on MPI Programming, HPF Programming, Scientific visualisation, among others.

06/2000–08/2000: Trained as a Computer Analyst and Programmer by the Greek Air Force.

ACADEMIC POSITIONS

09/2003–03/2004, 09/2004–02/2006: Adjunct Instructor at the Department of Materials Science and Technology, University of Crete.

03/2006–present: Special Technical Personnel at the Department of Materials Science and Technology, University of Crete.

TEACHING EXPERIENCE

Teaching Assistant

09/1993–01/1994: Physics Department, Aristotle University of Thessaloniki.

Responsible for grading weekly assignments in the fifth semester course on “Astronomy and Astrophysics”.

09/1994–02/2000: Physics Department, University of Crete.

Responsible for certain lectures and exam evaluations of third, fourth and sixth semester courses (“Introduction to Modern Physics I”, “Introduction to Modern Physics II” and “Quantum Mechanics II”) and in third and first semester courses on computing (“FORTRAN Programming” and “Use of Computers”).

Instructor

09/2003–03/2004: Department of Materials Science and Technology, University of Crete.

I was one of the instructors responsible for the first semester course on “Use of Computers”, providing course syllabus, lectures and computer lab supervision.

09/2004–present: Department of Materials Science and Technology, University of Crete.

I am responsible, either solely or in collaboration with others, for the Programming (“Introduction to Fortran 90” and “Numerical Analysis”) and “Advanced Programming” courses (“Introduction to C++”) providing syllabi, extensive notes, lectures and computer lab supervision, as well as designing and maintaining the courses’ web pages.

AWARDS

09/1994–04/2000: Successive full scholarships, awarded by the Department of Physics, University of Crete and the Institute of Electronic Structure and Laser, Foundation for Research and Technology – Hellas.

10/1998–12/1998: Financial support by the “Training and Research on Advanced Computing Systems (TRACS)” programme to visit Edinburgh Parallel Computing Centre (EPCC).

QUALIFICATIONS AND SKILLS

I have very good knowledge of C, C++ and FORTRAN 90/95/2003/2008 programming languages, with experience primarily on scientific computing, and very good knowledge of parallel programming with MPI and OpenMP. I am also familiar with PASCAL and SQL. I have very good knowledge of (X)HTML and CSS.

I am a very experienced administrator and user of the LINUX Operating System and I have very good knowledge of the L^AT_EX 2_ε document preparation system.

I have basic administration and good user level knowledge of Microsoft Windows 2000/XP/7.

PROFESSIONAL EXPERIENCE

05/2000–01/2002: Computer analyst–programmer in the Greek Air Force with classified duties.

01/2002–03/2006: Full-time or part-time system administrator in the Computing Centre of the Institute of Electronic Structure and Laser (IESL), Foundation for Research and Technology – Hellas (FORTH). My responsibilities comprised the set-up and administration of Linux systems and Linux clusters of workstations, technical maintenance of personal computers, and programming and scientific user support.

03/2006–present: Special Technical Personnel at the Department of Materials Science and Technology, University of Crete. My responsibilities comprise the set-up and administration of Linux systems and Linux clusters of workstations, technical maintenance of personal computers, and programming and scientific user support.

I also have teaching duties, as detailed in the “Teaching Experience” section.

CONFERENCES AND SCHOOLS

I have attended

- the 6th Summer School of Advanced Physics (July 1994), organized by the Department of Physics, University of Crete.
- the 5th Pan-Hellenic Conference / 10th Summer School on “*Complexity and Chaotic Dynamics of Nonlinear Systems*” (July 1997).
- the 3rd School of Physics and Technology of Fusion, Volos, Greece, 29 March – 2 April 2004, (association EURATOM–Hellenic Republic).
- the Partnership for Advanced Computing in Europe (PRACE) Winter School on Petascale Computing, Athens, Greece, February 10–13, 2009. The topics covered were: Programming models (MPI, OpenMP, Hybrid), optimization techniques, PGAS programming with UPC, Next Generation HPC Languages, Cell (System and Programming).
- the “International Meeting on Atomic and Molecular Physics and Chemistry - IMAMPC 2010”, held at “Consejo Superior de Investigaciones Científicas” (CSIC), Madrid, Spain, June 29 - July 2, 2010.
- the “Cyprus Advanced HPC Workshop Winter 2012”, held at “The Cyprus Institute”, Nicosia, Cyprus, February 5-9, 2012. Among the topics covered were “Graph partitioning” and “GPU Kernel development for application porting”.

- the “Second LinkSCEEM General User Meeting”, held at “The Cyprus Institute”, Nicosia, Cyprus, June 25-27, 2012. Among the topics covered was a course on “Programming GPU Environments and OpenACC Programming”.

TALKS AND PRESENTATIONS

I have given a talk at the “International Meeting on Atomic and Molecular Physics and Chemistry - IMAMPC 2010”, held at “Consejo Superior de Investigaciones Científicas” (CSIC), Madrid, Spain. The title was “Automatic differentiation via operator overloading: A Fortran 95 implementation”.

I have given a talk at the User Meeting of “Cyprus Advanced HPC Workshop Winter 2012”, held at “The Cyprus Institute”, Nicosia, Cyprus. The title was “Solving the Molecular Schrödinger Equation in Cartesian Coordinates”.

LANGUAGE SKILLS

Greek, English. Certificates awarded:

- First Certificate in English, Cambridge University, UK (1985),
- Certificate of Proficiency in English, University of Michigan, USA (1987).

REFERENCES

- Prof. Stavros C. Farantos,
Institute of Electronic Structure and Laser,
Foundation for Research and Technology – Hellas,
P. O. Box 1527, GR-711 10 Heraklion, Greece
Phone: (+30) 2810 391813 (Personal),
(+30) 2810 391301-3 (Secretaries),
(+30) 2810 545061 (Chemistry – Office),
(+30) 2810 545000 (Chemistry – Secretary).
Fax: (+30) 2810 391305
E-mail: farantos@iesl.forth.gr
- Assoc. Prof. G. Petekidis, Chairman,
Department of Materials Science and Technology,
University of Crete,
P. O. Box 2208, GR-710 03 Heraklion, Greece
Phone: (+30) 2810 391490, (Personal),
(+30) 2810 394270-2 (Secretaries).
Fax: (+30) 2810 394273
E-mail: georgp@materials.uoc.gr
- Assoc. Prof. G. Kopidakis,
Department of Materials Science and Technology,
University of Crete,
P. O. Box 2208, GR-710 03 Heraklion, Greece

Phone: (+30) 2810 394218 (Personal),
(+30) 2810 394270-2 (Secretaries).
Fax: (+30) 2810 394273
E-mail: kopidaki@materials.uoc.gr

PUBLICATIONS

In refereed journals:

1. Pankaj Bhatia, Biswajit Maiti, Narayanasami Sathyamurthy, Stamatias Stamatiadis, and Stavros C. Farantos. Exploring molecular motions in collinear HeH_2^+ and its isotopic variants using periodic orbits. *Physical Chemistry Chemical Physics*, 1(6):1105–1114, March 1999.
2. J. Weiß, J. Hauschildt, S. Yu. Grebenshchikov, R. Düren, R. Schinke, J. Koput, S. Stamatiadis, and S. C. Farantos. Saddle–node bifurcations in the spectrum of HOCl. *J. Chem. Phys.*, 112(1):77–93, January 2000.
3. B. Maiti, N. Sathyamurthy, S. Stamatiadis, and S. C. Farantos. Periodic Orbit Analysis for HeH_2^+ in three dimensions. *Indian Journal of Chemistry*, 39A(1–3):338–344, 2000.
4. J. Bredenbeck, C. Beck, R. Schinke, J. Koput, S. Stamatiadis, S. C. Farantos, and M. Joyeux. The vibrational spectrum of deuterated phosphaethyne: A quantum mechanical, classical, and semiclassical analysis. *J. Chem. Phys.*, 112(20):8855–8865, May 2000.
5. S. Stamatiadis, R. Prosmiiti, and S. C. Farantos. AUTO_DERIV: Tool for automatic differentiation of a FORTRAN code. *Comput. Phys. Commun.*, 127(2&3):343–355, May 2000; *Comput. Phys. Commun.*, 181(10):1818–1819, October 2010.
6. S. Stamatiadis, S. C. Farantos, Hans-Martin Keller, and Reinhard Schinke. Saddle–node states in the spectra of HCO and DCO: a periodic orbit classification of vibrational levels. *Chem. Phys. Lett.*, 344(5–6):565–572, August 2001.
7. S. C. Farantos, E. Filippou, S. Stamatiadis, G. E. Froudakis, M. Mühlhäuser, M. Massaouti, A. Sfounis, and M. Velegrakis. Photofragmentation spectra of Sr^+CO complex: experiment and ab initio calculations. *Chem. Phys. Lett.*, 366(3–4):231–237, December 2002.
8. S. C. Farantos, E. Filippou, S. Stamatiadis, G. E. Froudakis, M. Mühlhäuser, M. Perić, M. Massaouti, A. Sfounis, and M. Velegrakis. The excited states of Sr^+CO : photofragmentation spectra and ab initio calculations. *Chem. Phys. Lett.*, 379(3–4):242–247, September 2003.
9. J. Suarez, S. C. Farantos, S. Stamatiadis, and L. Lathouwers. A method for solving the molecular Schrödinger equation in Cartesian coordinates via angular momentum projection operators. *Comput. Phys. Commun.*, 180(11):2025–2033, November 2009.

In proceedings:

1. S. C. Farantos, S. Stamatiadis, L. Lathouwers, and R. Guantes. Grid Enabled Molecular Dynamics: classical and quantum algorithms. In George Maroulis and Theodore E. Simos, editors, *In the frontiers of*

Computational Science, volume 3 of *Lecture Series on Computer and Computational Sciences*, pages 35–50. European Society of Computational Methods in Science and Engineering, Brill Academic Publishers, The Netherlands, 2005.

2. J. Suarez, S. C. Farantos, S. Stamatiadis, and L. Lathouwers. A Parallel Code for Solving the Molecular Time Dependent Schrödinger Equation in Cartesian Coordinates. In George Maroulis and Theodore E. Simos, editors, *Lectures presented at the International Conference on Computational Methods in Sciences and Engineering 2008 (IC-CMSE 2008)*, volume 1148 of *COMPUTATIONAL METHODS IN SCIENCE AND ENGINEERING: Advances in Computational Science*, pages 241–245. American Institute of Physics, 2009.

Technical Papers:

Stavros C. Farantos, Stamatis Stamatiadis, Nello Nellari, and Djordje Maric. Grid Enabling Technologies. Technical report, ENACTS, December 2002. URL address: <http://www.epcc.ed.ac.uk/wp-content/uploads/2007/02/gridenabling.pdf>.

April 2014.