

CURRICULUM VITAE

Nikolaos A. Papandreou
PhD in Physics.

Professional situation: Researcher in the Agricultural University of Athens.

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Research activity

- 1. Biophysics, Bioinformatics. Study of Protein Folding and Structure, Computer Simulation of Biomolecules. Protein-Ligand Interaction.**
- 2. (Formerly) Solid State Physics: Metals, Semiconductors, Ceramics, Inhomogeneous Systems.**

Computer Science

Informatics and Internet in UNIX, Linux, MacOS and WINDOWS systems. Scientific programming in FORTRAN, C. Web development. Server administration with APACHE and WINDOWS SERVER.

Education

Teaching of Biophysics and Bioinformatics in the Msc “Bioinformatics” of the University of Athens. Web development for e-learning projects in the Agricultural University of Athens. Teaching of Physics in the Technical Educational Institutes of Pireaus and Athens.

STUDIES

1986-1989: PhD in Solid State Physics, at the Paris 11 University (Orsay), with a Grant from the French Ministry of Education. Subject: “Metal-Insulator transition in thin inhomogeneous Palladium films”.

1985-1986: MSc (DEA) in Solid State Physics at Paris 6 University (Pierre et Marie Curie, Jussieu).

1980-1985: Physics Degree at the University of Athens.

PROFESSIONAL EXPERIENCE

1997-Today: Researcher in the Biocomputing group, Laboratory of Genetics, Agricultural University of Athens.

2003-Today: Teaching of Biophysics and Bioinformatics in the Msc “Bioinformatics” of the University of Athens.

2001-Today: Teaching of Physics in the Technical Educational Institutes of Piraeus and Athens.

1997-1998: Researcher-collaborator in the University of Ioannina.

1995-1996: Post-doctoral position in Paris 6 University.

1990-1991: Post-doctoral position in the Ecole Polytechnique, Paris.

RESEARCH EXPERIENCE

1. Biophysics and Bioinformatics

1997-today: Research on the Simulation of Protein Folding in the Agricultural University of Athens, in collaboration with prof. Elias Eliopoulos. The project consists in the development of a dynamic Monte-Carlo algorithm for the ab initio simulation of the early folding events. This is the MIR algorithm, my main research activity. This activity is developed in collaboration with prof. Jacques Chomilier in Paris. It has been supported by the Franco-Hellenic program “PLATO” for the period 1998-2003. For the period 2003-2006 it has been financed by the program ”Life” of the European Union, in collaboration with six other laboratories. For the period 2006-2007, it has been funded by the Greek National GRID infrastructure project HellasGrid, which is part of the EGEE European Network.

1997-2002: Research on the binding of antigenic peptides by MHC class II proteins, mainly GAD peptides, which are related to type II diabetes, in collaboration with prof. Elias Eliopoulos (Agricultural University of Athens) and George Papadopoulos (Technological Educational Institute of Epirus). Project supported by program “Biotech” of the European Union.

2000-2001: Development of web site with protein structure analysis and prediction software, in collaboration with prof. Elias Eliopoulos (Agricultural University of Athens) and Stavros Hamodrakas (University of Athens).

1995-1996: Post-Doctoral work on the simulation of Protein Folding in the laboratories of “Physique des Solides” (LPS) and “Minéralogie et Crystallographie” (LMCP), in Paris, in collaboration with Dr Makoto Kanehisa and Dr Jacques Chomilier.

2. In Solid State Physics

1990-1991: Post-Doctoral work in the Ecole Polytechnique, Paris, on the low-temperature AC dielectric properties of Boron Carbide, in collaboration with Dr Libero Zuppiroli.

TEACHING EXPERIENCE

2003-today: Teaching in the Msc “Bioinformatics” of the University of Athens. Courses: Principles and Methods of Bioinformatics, Computational Analysis of Biomolecular Structures, Molecular Recognition.

2002: Teaching in the Summer School of the Institute of Biology of the “Demokritos” National Research Center.

2001-Today: Teaching of Physics in the Technical Educational Institutes of Piraeus and Athens.

1988-1989: Teaching of Mechanics and Acoustics at the School of Ergonomy of Paris 11 University (Orsay).

WEB-BASED EDUCATION

1997-Today: Development of web sites of Biological-Biotechnological content for under and post-graduate students at the Agricultural University of Athens, in collaboration with the Universities of Thessaloniki, Patras, Crete, Thrace and the Hellenic Pasteur Institute.

Participation to e-learning project for persons with special needs.

RESEARCH AND EDUCATIONAL PROJECTS

2006-2007: Information Society project of the European Union. Development of pilot applications for GRID infrastructures: Mir-Grid, use of Grid Computing for the prediction of critical positions of the protein structure.

2004-2008: Project EQUAL of the European Union: Enhancement of Capabilities of Persons with Special Needs by means of a pilot e-learning project.

2002-2005: Information Society project of the European Union. Development of a web-based teaching system in Biological Sciences.

2001-2004: PROTEIN FOLDING FRAGMENTS, European Union Concerted Action QLG2-CT-2002-01298, collaboration between the Lab of Genetics of the Agricultural University of Athens and six other european Labs.

2001-2003: Study of the protein compact nucleiduring folding and in the final protein structure. Application to amyloid diseases. Project “Plato” of bi-lateral scientific cooperation between France and Greece.

2000-2001: Project EKVAN2-1.2-97, Hellenic General Secretariat for Research and Technology. “DAM-Bio”, Development of a web-based System of automated study of Biomolecular Structures.

1998-2000: Studt of Protein Folding by combination of Monte-Carlo Simulations and Hydrophobic Cluster Analysis, Project “Plato” of bi-lateral scientific cooperation between France and Greece.

1997-2000: Project “EPEAEK” of the Greek Ministry of Education. Development of a web-based common frame of Courses of Biological and Agronomic Content in four Greek Universities.

1997-2000: European project BIOTECH. “Determination of Antigenic Motifs in proteins of the Human MHC II”. Collaboration with the University of Ioannina.

WEB SITES

<http://www.aua.gr/papandreou> My personal page at the Agricultural University of Athens.

<http://biotech.aua.gr> The Biotechnology Educational Server of the Agricultural University of Athens.

<http://elearning.aua.gr> E-learning system on Biological Sciences. Requires registration.

http://athina.biol.uoa.gr/DAM-Bio/index_gr.html The home page of the DAM-Bio system for the study of Biomolecular Structures. Hosted in the University of Athens.

<http://www.e-nsist.gr/> The home page of the E-learning system in the frame of the EQUAL project.

<http://biotech.aua.gr/MIR/> The MIR project home site. Under Construction. Wishes to become the central entrance point into a system of MIR-based services.