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**EDUCATION**

1991	<b>TEMPLE UNIVERSITY</b> <b>Ph. D. in Physics</b> ; Thesis dissertation: "Theoretical Studies of Quantum Transport in Submicron Semiconductor Electronic Devices." Supervising Professor: James D. Gunton. [Ph.D. thesis defence: 1989]	<b>Philadelphia, USA</b>
1986	<b>TEMPLE UNIVERSITY - M.S. in Physics</b>	<b>Philadelphia, USA</b>
1985	<b>UNIVERSITY OF ATHENS - B.S. in Physics</b>	<b>Athens, Greece</b>

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**PROFESSIONAL EXPERIENCE (brief)**

1989 - 1990	<b>PURDUE UNIVERSITY</b> Post-doctoral Research Associate, Electrical Engineering Department	<b>W. Lafayette, IN, USA</b>
1990 - 1991	<b>TEMPLE UNIVERSITY</b> Visiting Assistant Professor, Physics Department	<b>Philadelphia, PA, USA</b>
1991 - 1994	<b>FLORIDA INSTITUTE OF TECHNOLOGY</b> Physics and Space Sciences Department Assistant Professor of Physics and Space Sciences	<b>Melbourne, FL, USA</b>
1994 - 1995	<b>GREEK ARMY</b> Sergeant and Research Associate	<b>R&amp;D Center</b>
1997 - 2009	<b>LAMBRAKIS FOUNDATION</b> Senior Researcher	<b>Athens, Greece</b>
2003 - 2004	<b>UNIVERSITY OF ATHENS</b> Adjunct Faculty, Department of Economics	<b>Athens, Greece</b>
1999 - present	<b>UNIVERSITY OF CRETE</b> Physics Department Research Assistant Professor	<b>Heraklion, Crete</b>

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**PROFESSIONAL EXPERIENCE (in reverse chronological order)**

1999 - present	<b>UNIVERSITY OF CRETE, PHYSICS DEPARTMENT</b> <b>Research Assistant Professor</b> <ul style="list-style-type: none"><li>• <i>Teaching</i>: "Global Climate Change", "Mathematics of Finance", "Introductory Physics" (to first-year mathematics majors), "Statistical Modeling of Complex Networks" (co-teaching with G. Tsironis), and the "Entrepreneurship I&amp; II" courses (co-teaching with C. Athanasopoulos); all courses offered to the senior-year science majors.</li><li>• <i>Research</i>: Quantitative methods and models. Quantitative analysis of complex networks. Climate time series analysis. Economics of climate change. Global trade simulations using the computational general equilibrium (CGE) GTAP framework. Welfare impact of carbon taxes. "Value at Risk" methods (market risk, liquidity risk). Exogeneous and endogeneous shocks in complex networks.</li><li>• <i>Science Education summer schools</i>: Organizer of COMENIUS-GRUNDTVIG summer schools (for European educators from EU 20 countries): (2010) a) "From Telescopes to Accelerators: Enhancing Science Education by Exploring Science's Past, Present, and Future", b) "Discover Open Science Resources: Technology Enhanced Science Education and Science Content Organisation", c) "Hands-on teachers' training activities toward European Natural History and Environmental Cultural Heritage, using Digital Learning Resources and Repositories" (2009) a) "Hands-on teachers' training activities toward Global Warming and Climate Change, using Digital Learning Resources and Learning Repositories", and b) "DISCOVER COSMOS: Educational Resources in Technology-enhanced Science Learning"</li><li>• <i>Executive-training Seminars</i>: Hosted the 13<sup>th</sup> Global Trade Analysis (GTAP) Short Course (summer 2005), attended by 30 participants from 17 countries (course organized and delivered by Purdue University, USA), at the Computational Lab of the Physics Department. Designed, developed and delivered the "Value at Risk" seminar and the "e-Banking, e-Payments, e-Money" seminar to the higher level managers of Greece's Central Bank</li></ul>	<b>Heraklion, Crete</b>
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- *Public Policy*: Rapporteur and coordinator of the Working Groups on "e-Business at the SouthEastern European Countries", "Digital Content" and "e-Business to Consumer (eB2C)" of the Greek Ministry of Development (e-Business Forum).
- 1997 - 2009     **LAMBRAKIS FOUNDATION**     **Athens, Greece**  
**Senior Researcher**  
 • *Management*: Project Manager of many EC-funded R&D and educational projects.
- 1994 - 1996     **GREEK ARMY, COMMUNICATIONS**     **Greek Army R&D Center**  
**Sergeant and Research Associate**
- 1991 - 1994     **FLORIDA INSTITUTE OF TECHNOLOGY**     **Melbourne, FL, USA**  
**Assistant Prof. of Physics, Physics and Space Science Department**  
 • *Teaching*: graduate and undergraduate courses in Introductory Physics, Mechanics, Thermodynamics, Statistical Physics, Computational Physics.  
 • *Simulation and Modeling*: Modeling the time-dependent behavior of quantum electronic devices (quantum transistors, solar cells, infrared detectors).  
 • *New Technologies in Education*: collaboration with high-school teachers in developing multimedia modules to introduce quantum mechanical concepts to high-school students.  
 • *Heavy Scientific Computing*: Applied highly efficient Fast Fourier Transform methods to solve quantum partial differential equations. Numerical work performed in supercomputing environments (CRAY C90) and SUN workstations.  
 • *Finance and Econometrics*: Modeling exchange rates and share price index volatility (ARCH methodology), closely correlated currencies, and options pricing.
- 1990 - 1991     **TEMPLE UNIVERSITY**     **Philadelphia, PA, USA**  
**Visiting Assistant Professor, Physics Department**  
 • *Teaching*: graduate and undergraduate courses in Solid State Physics, Thermodynamics, and Mechanics.  
 • *Research*: Applied many-electron methods in quantum transport problems.
- 1989 - 1990     **PURDUE UNIVERSITY**     **W. Lafayette, USA**  
**Post-doctoral Research Associate, Electrical Engineering Department**  
 • *Research*: quantum transport and dissipation in electronic devices.

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***CURRENT WORKING PAPERS AND PUBLICATIONS (Selected)***

- **Which are the Most Central Skills and Knowledge for the New-and-Emerging Green Jobs? (Based on Network Analysis of the O\*NET-SOC 2009 Updated Taxonomy)**, by P. Asteris, M. Prasinou, and G. Neofotistos, abstract accepted and paper submitted for presentation to the 118th Annual Conference of the American Society for Engineering Education (ASEE) in Vancouver, BC, Canada, June 26 - 29, 2011.
- **Green Jobs of the 21<sup>st</sup> Century: New and Emerging Occupations (as appear in the O\*NET-SOC 2009 Updated Taxonomy)**, by G. Neofotistos, *Technical Report*, University of Crete, TR-01-5-2010, May 2010.
- **Quantitative Analysis of the Usage of the COSMOS Science Education Portal**, by S. Sotiriou, F. X. Bogner, and G. Neofotistos, accepted for publication to *Journal of Science Education and Technology*. DOI: 10.1007/s10956-010-9256-1. Springer Science+Business Media, LLC 2010. Accessible online at: <http://www.springerlink.com/content/776g586483203156/>
- **Comparing the Most Central Skills and Knowledge in Engineering and Science Jobs**, by Neofotistos, G.C, Asteris, P.G., Athanasopoulos, C.A. (2009). 8th ASEE Global Colloquium on Engineering Education, October 12-15, 2009, Budapest, Hungary.
- **Most Central Skills and Knowledge in Engineering Jobs: A Network Analysis of the O\*NET Database**, by Asteris, P.G., Athanasopoulos, C.A., Neofotistos, G.C. (2009). 8th ASEE Global Colloquium on Engineering Education, October 12-15, 2009, Budapest, Hungary.
- **Welfare impact of a global coal and oil tax on the Greek economy**, by G. Neofotistos and M. Tsigas, working paper 2009.
- **Using a simple Campbell-Diebold model to estimate global warming trends**, by G. Neofotistos, C. Athanasopoulos and C. Kotsis, working paper, 2009.
- **GoGreen: encouraging the adoption of Environmental Management Systems by the Greek SMEs**, by G. Neofotistos and Emmanuel Petrakis, working paper, 2009.
- **Exogeneous shocks to generate demand for science/education web-based services:**

- **Impacts of international developments on the Greek economy: Assessing CGE model simulations**, by G. Neofotistos, D. Giannos, and M. Tsigas, accepted for presentation to the *12th GTAP Annual Conference on Global Economic Analysis*, June 10 - 12, 2009, Santiago, Chile.
- **Modeling Interactions in Learning Settings and their Impact on the Learning Process**, by G. Neofotistos, N. Kastis, E. Tsourlidaki and N. Voulgarakis, Chapter in EDEN book "Distance and E-learning in Transition", 2009.
- **Deploying broadband-based infrastructure and e-learning services to enhance social networking and teachers professional development in remote rural schools**, by P. Koulouris, S. Sotiriou, E. Chrysafidou, N. Tsagliotis, and G. Neofotistos, EDEN Annual Conference 2009 on *Innovation in Learning Communities*, 10-13 June 2009, Gdansk, Poland.

### ***PUBLICATIONS and CONFERENCE PRESENTATIONS***

1. **Which are the Most Central Skills and Knowledge for the New-and-Emerging Green Jobs? (Based on Network Analysis of the O\*NET-SOC 2009 Updated Taxonomy)**, by P. Asteris, M. Prasinos, and G. Neofotistos, abstract accepted and paper submitted for presentation to the 118th Annual Conference of the American Society for Engineering Education (ASEE) in Vancouver, BC, Canada, June 26 - 29, 2011.
2. **Quantitative Analysis of the Usage of the COSMOS Science Education Portal**, by S. Sotiriou, F. X. Bogner, and G. Neofotistos, accepted for publication to *Journal of Science Education and Technology*. DOI: 10.1007/s10956-010-9256-1. Springer Science+Business Media, LLC 2010. Accessible online at: <http://www.springerlink.com/content/776g586483203156/>
3. **Comparing the Most Central Skills and Knowledge in Engineering and Science Jobs**, by Neofotistos, G.C, Asteris, P.G., Athanasopoulos, C.A. (2009). 8th ASEE Global Colloquium on Engineering Education, October 12-15, 2009, Budapest, Hungary.
4. **Most Central Skills and Knowledge in Engineering Jobs: A Network Analysis of the O\*NET Database**, by Asteris, P.G., Athanasopoulos, C.A., Neofotistos, G.C. (2009). 8th ASEE Global Colloquium on Engineering Education, October 12-15, 2009, Budapest, Hungary.
5. **Impacts of international developments on the Greek economy: Assessing CGE model simulations**, by G. Neofotistos, D. Giannos, and M. Tsigas, accepted for presentation to the *12th GTAP Annual Conference on Global Economic Analysis*, June 10 - 12, 2009, Santiago, Chile.
6. **Κλιματικές Αλλαγές και Επιπτώσεις στην Οικονομία**. Εμμ. Πετράκης και Γ. Νεοφώτιστος. Στο: Δ. Ξενάκης (επιμέλεια και εισαγωγή) *Κατευθύνσεις Προοδευτικής Διακυβέρνησης*, Παπαζήσης, Αθήνα, 2009.
7. **Modeling Interactions in Learning Settings and their Impact on the Learning Process**, by G. Neofotistos, N. Kastis, E. Tsourlidaki and N. Voulgarakis, Chapter in EDEN book "Distance and E-learning in Transition", 2009.
8. **Deploying broadband-based infrastructure and e-learning services to enhance social networking and teachers professional development in remote rural schools**, by P. Koulouris, S. Sotiriou, E. Chrysafidou, N. Tsagliotis, and G. Neofotistos, EDEN Annual Conference 2009 on *Innovation in Learning Communities*, 10-13 June 2009, Gdansk, Poland.
9. **Η ανάγκη ενίσχυσης των μαθημάτων φυσικών επιστημών για την αντιμετώπιση των παγκόσμιων κλιματικών αλλαγών**, Γ. Νεοφώτιστος και Σ. Σωτηρίου. *Πρακτικά 8<sup>ου</sup> Περιβαλλοντικού Συνεδρίου της Ένωσης Ελλήνων Φυσικών*, Ηράκλειο 26-29/3/2009.
10. **Καινοτόμες εκπαιδευτικές δράσεις για την ενίσχυση των απομακρυσμένων κοινοτήτων στην αντιμετώπιση των επερχόμενων περιβαλλοντικών αλλαγών**, Γ. Νεοφώτιστος, Σ. Σωτηρίου, Π. Κουλούρης, Ν. Τσαγιώτης και Εμμ. Αποστολάκης. *Πρακτικά 8<sup>ου</sup> Περιβαλλοντικού Συνεδρίου της Ένωσης Ελλήνων Φυσικών*, Ηράκλειο 26-29/3/2009.
11. **The effect of selected international developments on the Greek economy**, by M. Tsigas and G. Neofotistos, Proceedings of the *11th GTAP Annual Conference on the Future Global Economy*, June 12 - 14, 2008, Helsinki, Finland.

12. **How does Turkey's Growth Affect Greece; An Economywide Approach**, by M. Tsigas and G. Neofotistos, *Proceedings of the 9th GTAP Annual Conference*, June 15 - 17, 2006, Addis Ababa, Ethiopia.
13. **Modelling Interactions in Learning Settings and their Impact on the Learning Process**, by G. Neofotistos, N. Kastis, E. Tsourlidaki and N. Voulgarakis, *Proceedings of 5<sup>th</sup> EDEN Open Classroom Conference*, Poitiers, France, 5-7 October, 2005.
14. **Scaling of the Distribution of the Greek Financial Markets Fluctuations**, by S. Stavraki, G. Neofotistos, and G. Dimitropoulos, *Proceedings of the Hellenic Financial and Accounting Association*, 2004 Conference, Athens, Greece, December 4, 2004.
15. **Trends in Greek company dynamics, 1984-2000: the "young" vs the "old"**, by G. Neofotistos and I. G. Lainioti, presentation at the *11<sup>th</sup> Multinational Finance Society Conference*, July 3-8, 2004, Istanbul, Turkey.
16. **e-Learning Product Quality and Market Size**, by G. Neofotistos, N. Kastis and P. Petrakis, *Proceedings of the 12<sup>th</sup> EDEN Annual Conference*, June 15-18, 2003; Rhodes, Greece
17. **Entrepreneurship and the Quest for the New Economy "Golden Fleece": Country-of-Origin Risks, Networks, and Distance to Frontier**, by P. Petrakis and G. Neofotistos, *Proceedings of the Global Business and Economics Research Conference*, Istanbul, Turkey, August 7-13, 2003.
18. **Relative Importance of Liquidity Risk in European Fixed Income Markets**, by G. Neofotistos, *Proceedings of the Hellenic Financial and Accounting Association*, 1<sup>st</sup> Meeting, Thessaloniki, Greece, November 8-10, 2002.
19. **The Changing Role of Universities: Universities and Companies in the Emerging Marketplace of Higher Education**, by G. Neofotistos, N. Kastis, K. Kontopoulos, and T. Giamas, *Proceedings of EDEN's 10<sup>th</sup> Anniversary Conference "Learning without Limits: Developing the Next Generation of Education"*, Stockholm, June 10-13, 2001.
20. **Modeling the Volatility of Share-Prices of Stocks Traded at the Athens Stock Exchange**, by M. G. Papaioannou and G. Neofotistos, in *EMERGING CAPITAL MARKETS: FINANCIAL AND INVESTMENT ISSUES*, by J. Jay Choi and J. A. Doukas (Eds), Greenwood Publishing Group (Quorum Books), Westport, CT; 1999.
21. **Today's STORIES; wearable technologies for teaching children**, by M. Panayi, D. Roy, W. Van de Velde, J. Klaff, O. Cakmakci, K. De Paepe, N. Ole Bernsen, G. Neofotistos, C. Bouras, A. Sevasti, and V. Kapoulas, *Proceedings of I3 (Intelligent Information Interfaces) Conference*, October 1999, Sienna, Italy.
22. **Modeling Foreign Exchange Risk; Capital Adequacy Directive and the Greek Drachma**, by G. Neofotistos, *Proceedings of the 1997 Multinational Finance Society Meeting*, Thessaloniki, Greece; June 1997.
23. **Measuring the Variability of the Greek Drachma: a Comparative Approach**, by G. Neofotistos and M. G. Papaioannou, *Proceedings of the 1997 Multinational Finance Society Meeting*, Thessaloniki, Greece; June 1997.
24. **Using Telematics to Overcome Educational Constraints: Teaching Differential Equations Using the World Wide Web and Multimedia Technology**, by G. Tsironis and G. Neofotistos, to be published in *the Proceedings of the 'Virtual Campus: Trends for Higher Education and Training' Conference*, November 1997, Madrid, Spain.
25. **Modeling the Volatility of the U.S. Dollar, the Deutsche Mark, and the ECU Exchange Rates Relative to the Greek Drachma**, by M. G. Papaioannou and G. Neofotistos, accepted for presentation to the *1997 Annual Meeting of the European Financial Management Association*, Istanbul, Turkey; June 26-29 1997.
26. **Fluctuation statistics and nonlinear behavior in the dynamics of an economic index**, by G. Neofotistos, *Proceedings of the "Fluctuation, Nonlinearity and Disorder" Conference*,

27. **Practical Aspects in Introducing Derivatives: the Greek Experience**, by M. G. Papaioannou and G. Neofotistos, *Report to the Governor of the Bank of Greece*, July 1995.
28. **High-efficiency multilayer materials for solar cells**, by J. D. Patterson, G. Neofotistos, and R. Raffaele, *Technical Report*, Florida Solar Energy Center (1993).
29. **Time-dependent characteristics of a high efficiency solar cell comprising multiple quantum wells: photoinduced charge separation and electron storage**, by G. Neofotistos and J. D. Patterson, *Technical Report*, Florida Solar Energy Center (1992).
30. **Inelastic scattering effects on single barrier tunneling**, by G. Neofotistos, R. Lake, and S. Datta, *Physical Review B* 43, 2442 (1991).
31. **Dissipative quantum transport in electron waveguides**, by M. McLennan, Y. Lee, R. Lake, G. Neofotistos, and S. Datta, *Computational Electronics; Semiconductor Transport and Device Simulation*, eds. K. Hess, J. P. Leburton, and U. Ravaioli; Kluwer Academic Publishers, Boston, 1990.
32. **Time-dependent modeling of resonant tunneling structures using the 3-dimensional Schroedinger equation: investigation of the intrinsic time characteristics of a zero-dimensional semiconductor nanostructure**, by G. Neofotistos, K. Diff, and J. D. Gunton, *Proceedings of the International Symposium on Nanostructure Physics and Fabrication*, Texas A&M University, March 13-15 1989, p. 135, Academic Press, 1989.
33. **Resonant tunneling in double-barrier diodes**, by K. Diff, G. Neofotistos, H. Guo, and J. D. Gunton, *Proceedings of the International Symposium on Nanostructure Physics and Fabrication*, Texas A&M University, March 13-15 1989, p. 285, Academic Press, 1989.
34. **Quantum mechanical simulation of charge transport in very small semiconductor structures**, by M. C. Yalabik, G. Neofotistos, K. Diff, H. Guo, and J. D. Gunton, *IEEE Transactions on Electron Devices* 36, 10009 (1989).
35. **Resonant tunneling in double-barrier parabolic well structures**, by G. Neofotistos, H. Guo, K. Diff, and J. D. Gunton, *IEEE Transactions on Electron Devices* 36, 745 (1989).
36. **Time-dependent investigation of the resonant tunneling in a double-barrier quantum well**, by H. Guo, K. Diff, G. Neofotistos, and J. D. Gunton, *Applied Physics Letters* 53, 131 (1988).
37. **Simulation of charge transport in a GaAs MESFET using the time-dependent Schroedinger equation**, by M. C. Yalabik, J. D. Gunton, G. Neofotistos, and K. Diff, *Superlattices and Microstructures* 3, 463 (1987).