

# Elias Koutsoupias

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## Biography

**Born:** 1963, Greece.

### Education:

Ph.D. University of California, San Diego, 1994.  
B.S. National Tech. Univ. of Athens, Greece, 1987.

### Employment:

2001-present. Professor, University of Athens.  
2001-2003. Associate Professor, University of California at Los Angeles (UCLA).  
1994-2000. Assistant Professor, University of California at Los Angeles (UCLA).  
1989-1994. Research Assistant, University of California at San Diego (UCSD).

### Other positions:

2011: Visiting scholar, Center of Rationality, Hebrew University, Jerusalem.  
2008-10: Head of the Division of Theoretical Computer Science, University of Athens.  
2004: Visiting scholar, University of California, Berkeley.

## Research Interests

Algorithms and complexity. In particular, algorithmic game theory, economics and networks, online algorithms, decision-making under uncertainty, design and analysis of algorithms.

## Professional Activities

- Program committee chair of SAGT 2010, WINE 2011.
- Program committee member of STOC 2001, WEA 2001, LATIN 2002, APPROX 2002, ICALP 2003, ESA 2004, OLA 2004, ALGOSENSORS 2004, WAW 2004, ISAAC 2005, SPAA 2006, TGC 2006, WINE 2006, SAGT 2008, CIE 2008, WINE 2008, APPROX 2009, ICALP 2009, EC 2010, SIROCCO 2010, ICALP 2010, SAGT 2010, SAGT 2011, WINE 2011, ICALP 2012.
- Founding member of
  - Symposium on Algorithmic Game Theory (SAGT): one of the 3 conferences focusing on algorithmic game theory.
  - Greece Economic and Algorithmic Theory Week (GREAT): the first workshop is to be held in Paros Greece in 2011 and most of the top researchers in the algorithmic game theory community will participate.
  - Athens Colloquium in Algorithms and Complexity (ACAC): it draws about 80 researchers, mostly Greek, every year at the end of August in Athens.
- Associate editor of Journal of Computer and Systems Science (JCSS).
- I have been a reviewer for academic journals including *Journal of the ACM*, *SIAM Journal on Computing*, *Algorithmica*, *Theoretical Computer Science*, *Information and Computation*, *Mathematics of Operations Research*, *Information Processing Letters*, and others.
- I have acted as reviewer for the conferences Symposium on Foundations of Computer Science (FOCS), the Symposium on the Theory of Computing (STOC), the Symposium on Discrete Algorithms (SODA), the International Colloquium on Automata, Languages, and Processing (ICALP), the European Symposium on Algorithms (ESA) and others.

- I have also acted as reviewer for funding agencies of Canada, Greece, Israel, Netherlands, Switzerland, USA.

### **Citations**

- Number of citations: 3500 (Google scholar 2011-06-18, including self-citations)
- Some notable references
  - The textbook “Online Computation and Competitive Analysis” by Allan Borodin and Ran El-Yaniv contains a few chapters devoted to my work on online algorithms.
  - The collection of survey articles “Online Algorithms: The State of the Art” by Amos Fiat and Gergard J. Woeginger contains a few surveys devoted mainly to my work on online algorithms.
  - The textbook “Approximation Algorithms”, by V. V. Vazirani (Springer 2001) covers extensively my work on online algorithms.
  - The collection of survey articles “Approximation algorithms for NP-hard problems” by Dorit S. Hochbaum covers extensively my work on online algorithms.
  - The book “Algorithmic Game Theory” by N. Nisan, T. Roughgarden, E. Tardos, and V. V. Vazirani, contains many chapters on the price of anarchy, a concept introduced by Christos Papadimitriou and myself.
  - A Feature Column by Joseph Malkevitch (January 2011) of the American Mathematical Society is devoted to the price of anarchy  
<http://www.ams.org/samplings/feature-column/fcarc-anarchy>

### **Ph.D. Students**

David S. Taylor, 2000 (San Jose State University, California)  
 Akash Nanavati, 2003 (Google, Mountain View, California)  
 George Christodoulou, 2006 (University of Liverpool, UK)  
 Angelina Vidali, 2009 (Max-Planck Institute, Saarbrucken, Germany)  
 Katia Papakonstantinou (current)  
 Yiannis Giannakopoulos (current)

### **Funding**

- National Science Foundation (USA)
  - “On-line Algorithms”, 1995–2002, approximately \$60.000 per year.
  - “ITR: Analysis of Internet Algorithms: Optimization, Game Theory and Competitive Analysis”, co-PI with R. Karp, C. Papadimitriou, and S. Shenker, 2000–2003, \$500.000 (total, for all co-PIs).
- IST (European Union), “Foundational Aspects of Global Computing Systems (FLAGS)”, 2002–2004, 300.000 euro.
- IST (European Union), “Algorithmic principles for building efficient overlay computers (AEOLUS)”, 2005–2009, 220.000 euro.
- IST (European Union), “Foundations of Adaptive Networked Societies of Tiny Artefacts (FRONTS)”, 2008–2011, 200.000 euro.
- Ministry of education, Greece, “PYTHAGORAS II: Algorithms and complexity in the theory of networks”, co-PI with S. Koliopoulos and V. Zissimopoulos, 2005–2007, 70.000 euro.
- General Secretariat for Research and Technology, Greece, “PENED 2003”, co-PI with V. Zissimopoulos, 2005–2008, 96.000 euro.