

CURRICULUM VITAE

PERSONAL INFORMATION

Name: Eleni Bakali
Date of birth: 03.04.1986
Address: Thrakis 16, N.Smyrni, 17121, Athens, Greece
Tel: 2109359921, 6974173094
E-mail: mpakalitsa@gmail.com

EDUCATION

Phd: December 2018. School of Electrical and Computer Engineering
Thesis title: On properties of counting functions with easy decision version: completeness, approximability, Markov chains, phase transitions
Advisor: prof. Stathis Zachos

Masters: December 2014. Department of Mathematics, UoA
Subject: Logic and Algorithms (MPLA)
GPA: 9.38/10 *Rank:* 1st
Thesis title: On the Meaningful Instances of Clustering
Advisor: prof. Dimitris Achlioptas

Undergraduate: October 2010. School of Applied Mathematical and Physical Sciences, NTUA
Majors: Computer Science, Statistics
GPA: 8/10 *Rank:* 1st in CS major, 14th in whole School
Thesis title: Randomness Extractors and Applications to Cryptography
Advisors: prof. Stathis Zachos, prof. Aggelos Kiayias

CURRENT POSITION

National Technical University of Athens, post-doctoral researcher (from 16/2/2020)
Athens University of Economics and Business, post-doctoral researcher (1/9/2019-31/7/2020)

GRANTS RECEIVED

“Structural and descriptive counting complexity”. A research project funded by Greece and the European Union (European Social Fund- ESF) through the Operational Programme «Human Resources Development, Education and Lifelong Learning» in the context of the project “Reinforcement of Postdoctoral Researchers - 2nd Cycle” (MIS-5033021), implemented by the State Scholarships Foundation (IKY). 2020-2022.

PUBLICATIONS

M. Karaliopoulos, E.Bakali, Optimizing mobile crowdsensing platforms for boundedly rational users. To appear in IEEE Transactions on Mobile Computing, 2020.

E. Bakali, A. Chalki, A. Pagourtzis. Characterizations and approximability of hard counting classes below #P. To appear in TAMC 2020.

Bakali E., Chalki A., Pagourtzis A., Descriptive complexity of classes of easy-to-decide counting problems, 20th International Workshop on Logic and Computational Complexity (LCC'19), 2019.

E. Bakali: On Markov chains for #Clustered-Monotone-SAT and other hard counting problems with easy decision version, International Journal of Scientific & Engineering Research Volume 9, Issue 3, March-2018, pp 1203-1211.

E. Bakali: TotP-completeness and a connection to the approximability of #SAT (abstract), in Proc. of Dagstuhl Seminar 17341 "Computational Counting", 2017.

Bakali E., Chalki A., Pagourtzis A., Pantavos P., Zachos S. (2017) Completeness Results for Counting Problems with Easy Decision. In Proc. of the 10 th International Conference in Algorithms and Complexity. CIAC 2017. Lecture Notes in Computer Science, vol 10236. Springer, Cham, pp 55-66.

A. Mistriotis, E. Bakali. Analytic model of Nannochloropsis sp. population's growth in closed cultivation (abstract). In Proc. of the 4th Panhellenic Conference in Ecology "Modern trends of research in ecology", Volos 2008, p. 53.

E. Bakali, P. Cheilaris, D. Fotakis, M. Fürer, C. Koutras, E. Markou, C. Nomikos, A. Pagourtzis, C. Papadimitriou, N. Papaspyrou, and K. Potika. Stathis Zachos at 70! . Proceedings of the 10th International Conference on Algorithms and Complexity (CIAC 2017), Athens 2017.

A. Angelopoulos, Eleni Bakali: Exact uniform sampling over catalan structures. CoRR abs/1803.03945 (2018).

CONFERENCE TALKS

- Descriptive complexity of classes of easy-to-decide counting problems, 20th International Workshop on Logic and Computational Complexity (LCC'19)
- Completeness results for counting problems with easy decision, CIAC (2017).
- TotP-completeness and a connection to the approximability of #SAT, Dagstuhl Seminar 17341 "Computational Counting" (2017).

HONORS AND AWARDS

- Ranked 1st among graduates of MPLA, 2014
- Ranked 1st among graduates of CS major, SEMFE, 2010.
- Ranked 14th among graduates of SEMFE, 2010.
- Scholarship from Fall School "Phase transitions in discrete random structures", TU Graz, Austria, 2013.
- SSF Scholarship for ranking 6th among the students who entered SEMFE, NTUA, 2004.
- Ranked 1st in school mathematics competition "Georgios Georgiou", 2001.
- Success in the national high school mathematics competition "Thales", 2000.
- Honors for Excellence in high school

PAST RESEARCH EXPERIENCE

- Research assistant, programming in several projects, National Agricultural University of Athens, 2007-2010.
- Research Assistant, CTI Diophantus, University of Patras, project: RIMACO (Rigorous Mathematical Connections Between the Theory of Computation and Statistical Physics), 2013-2014.
- Statistical research interviewer, NTUA. Project: "Research on the integration into the labor market and the professional development of young NTUA graduates", National Technical University of Athens, 2015.
- Research Assistant, Athens University of Economics and Business, project: CRESCENDO, 2019-2020.

TEACHING EXPERIENCE

- Teaching Assistant, ECE, NTUA, 2010-2017 in several Computer Science courses
- Laboratory Assistant in the course 'Introduction to Programming' ECE, NTUA, 2010-2014.
- Transcription of mathematical books in Braille, at the 'Faros Tyflon Ellados' Foundation, 2013.
- Private tutoring on mathematics and physics courses, 2004-2019.
- Teaching at the seminar 'Information and Coding theory 2013', CoReLab, NTUA.
- Teaching in public secondary school, preparation for the national exams, 2018-2019.

PARTICIPATION IN CONFERENCES, WORKSHOPS, SUMMER SCHOOLS etc.

- 20th International Workshop on Logic and Computational Complexity (LCC'19)
- Athens Probability Colloquium 2015, 1016, 2017, 2018.
- Athens colloq. in algorithms and complexity ACAC'08,'09,'10,'11,'12,'13,'14,'15,'16, '18.
- Dagstuhl Seminar 17341 "Computational Counting", 2017.
- 10th International Conference on Algorithms and Complexity, CIAC 2017.
- Spring School "Techniques in Random Discrete Structures", ЕКПА, 2017.
- 2nd Nisyros conference on automorphic representations & related topics, 2016.
- Fall School "Phase transitions in discrete random structures", TU Graz, Austria, 2013.
- Eurocrypt 2013.
- Athecrypt '13, '14, '15, '16, '18.
- Crypto.Sec Group Day '11, '12, '13, '14, '15, '16.
- RECUP workshop '11, '13, '14, '15.
- CODAMODA workshop '16.
- NTUA Seminars: topics in algebra ('15) mathematical methods in classical mechanics ('15), mathematical methods in quantum mechanics ('16), Probabilistic algorithms, Information and Coding theory ('13), study groups of CoReLab (2010-2019).

Organizer of NTUA seminars: topics in algebra 2015, Information and Coding Theory 2013.

Local arrangements for ACAC '15, '14, '11, '10, and Eurocrypt '13.

TECHNICAL SKILLS

- Matlab, Mathematica, R, Java, Pascal, Fortran, Python, Latex, Microsoft Office, Photoshop

LANGUAGES

- English, Certificate of Competency in English, University of Michigan
- German, good
- Greek, native speaker

OTHER INTERESTS

- Dancing, drawing, music

Updated: September 4th 2020