

## Christos Koufogiannakis

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Department of Computer Science  
Engineering BU2  
University of California  
Riverside, CA 92521  
USA

ckou@cs.ucr.edu  
<http://www.cs.ucr.edu/~ckou/>  
1-951-756-9596

### Education

Ph.D. Computer Science, Dec. 2009  
University of California, Riverside, CA, USA

M.S. Computer Science, Aug. 2007  
University of California, Riverside, CA, USA

B.S. Electronic and Computer Engineer, Jul. 2004  
Technical University of Crete, Chania, Greece

### Research

University of California  
Postdoctoral Researcher  
Design and analysis of efficient approximation/distributed algorithms for combinatorial optimization problems.

Riverside, CA, USA  
Winter 2010

University of California  
Research Assistant  
Supervisor: Professor Neal Young.  
Design and analysis of efficient approximation/distributed algorithms for combinatorial optimization problems.

Riverside, CA, USA  
2006-2009

Technical University of Crete  
Undergraduate Diploma Thesis  
Supervisor: Professor Vasilis Samoladas.  
Techniques for Simulating Quantum Computers. Exploiting Multi-terminal Decision Diagrams for storing huge matrices and performing operations without uncompressing them.

Chania, Greece  
2003-2004

Technical University of Crete  
Undergraduate Research Assistant  
Dynamic Systems and Simulation Laboratory (DSSL).  
Modeling and simulation of traffic light behavior under the SMARTNETS project. Improvement of real-time network-wide urban traffic control via the application, demonstration, and evaluation of the new-generation control strategy TUC (Traffic-responsive Urban Control).

Chania, Greece  
June 2000-2002

## Peer Reviewed Publications

- **C. Koufogiannakis** and N. Young, *Beating Simplex for Fractional Packing and Covering Linear Programs*, In Proceedings of the 48th Annual IEEE Symposium on Foundations of Computer Science (FOCS 2007), pages 407–417
- **C. Koufogiannakis** and N. Young, *Greedy  $\delta$ -Approximation Algorithm for Covering with Arbitrary Constraints and Submodular Cost*, In Proceedings of the 36th International Colloquium on Automata, Languages and Programming (ICALP 2009), Lecture Notes in Computer Science, Volume 5555/2009, pages 634–652
- K. Pelechrinis, **C. Koufogiannakis**, S.V. Krishnamurthy, *Gaming the Jammer: Is Frequency Hopping Effective?*, In Proceedings of the 7th International Symposium on Modeling and Optimization in Mobile, Ad Hoc, and Wireless Networks (WiOpt 2009), pages 1–10
- **C. Koufogiannakis** and N. Young, *Distributed and Parallel Algorithms for Weighted Vertex Cover and other Covering Problems*, In Proceedings of the 28th ACM SIGACT-SIGOPS Symposium on Principles of Distributed Computing (PODC 2009), pages 171–179
- **C. Koufogiannakis** and N. Young, *Distributed Fractional Packing and Maximum Weighted  $b$ -Matching via Tail-Recursive Duality*, In Proceedings of the 23rd International Symposium on Distributed Computing (DISC 2009), Lecture Notes in Computer Science, 2009, Volume 5805/2009, pages 221-238
- K. Pelechrinis, **C. Koufogiannakis**, S.V. Krishnamurthy, *On the Efficacy of Frequency Hopping in Coping with Jamming Attacks in 802.11 Networks*, IEEE Transactions on Wireless Communications, 2010, Volume 9(10), pages 3258–3271
- **C. Koufogiannakis** and N. Young, *Distributed Algorithms for Covering, Packing and Maximum Weighted Matching*, Distributed Computing, 2011, Volume 24(1), pages 45–63
- **C. Koufogiannakis** and Neal Young, *Greedy  $\Delta$ -approximation Algorithm for Covering with Arbitrary Constraints and Submodular Cost*, Algorithmica, accepted for publication

## Publications Under Submission

- **C. Koufogiannakis** and N. Young, *A Nearly Linear Time PTAS for Explicitly Given Fractional Packing and Covering Linear Programs*, under submission

## Non-Peer-Reviewed Publications

- **C. Koufogiannakis** and N. Young, *Flooding overcomes small covering constraints*, CoRR, abs/0807.0644, 2008, <http://arxiv.org/abs/0807.0644>

## Doctoral Dissertation

- **C. Koufogiannakis**, *Approximation Algorithms for Covering Problems*, University of California Riverside, 2009

### Invited talks

- **C. Koufogiannakis** and N. Young, *Flooding Overcomes Small Covering Constraints*, The 20th International Symposium of Mathematical Programming (ISMP 2009)

### Honors - Awards

- Greek State Scholarships Foundation scholarship (IKY), 1999
- Greek State Scholarships Foundation scholarship (IKY), 2000-2001
- Greek State Scholarships Foundation scholarship (IKY), 2002-2003
- Technical Chamber of Greece scholarship, 2002-2003
- Gerondelis Foundation Scholarship, 2006
- Greek State Scholarships Foundation scholarship (IKY), 2006-2009

### Skills

- Languages: Greek (native), fluent English
- Computer Skills: C, C++, Python, Matlab,  $\text{\LaTeX}$ , Windows, Linux

### References

Available upon request.