

Ali Kemal Sinop

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- EDUCATION
- ◇ **Carnegie Mellon University**, Pittsburgh, PA.
Ph.D. in Computer Science, in progress. August 2007 - May 2012 (expected).
Advised by: Venkatesan Guruswami.
 - ◇ **University of Pennsylvania**, Philadelphia, PA.
M.S.E. in Computer and Information Science, September 2004 - August 2005.
CGPA: 3.92/4.00.
 - ◇ **Bilkent University**, Turkey.
B.Sc. in Computer Engineering, September 2000 - June 2004.
CGPA: 3.95/4.00 (Major: 4.00/4.00).
Ranking: 2.
- WORK EXPERIENCE
- ◇ Siemens Corporate Research, Princeton, NJ.
Technical Associate, September 2005 - August 2007.
Supervised by: Dr. Leo Grady.
 - Worked on various graph partitioning algorithms for image segmentation.
- RESEARCH INTERESTS
- ◇ **Theoretical computer science:** Approximation algorithms and hardness of approximation in particular.
- PUBLICATIONS
- ◇ V. Guruswami, **A.K. Sinop**, “Optimal Column-Based Low-Rank Matrix Reconstruction,” in SODA 2012.
 - ◇ V. Guruswami, **A.K. Sinop**, “Lasserre Hierarchy, Higher Eigenvalues, and Approximation Schemes for Quadratic Integer Programming with PSD Objectives,” in FOCS 2011.
 - ◇ V. Guruswami, **A.K. Sinop**, “The complexity of finding independent sets in bounded degree (hyper)graphs of low chromatic number,” in SODA 2011.
 - ◇ V. Guruswami, **A.K. Sinop**, “Improved Inapproximability Results for Maximum k-Colorable Subgraph,” in APPROX-RANDOM 2009.
 - ◇ L. Grady, **A.K. Sinop**, “Fast Approximate Random Walker Segmentation Using Eigenvector Precomputation,” in CVPR 2008.
 - ◇ **A.K. Sinop**, L. Grady, “A Seeded Image Segmentation Framework Unifying Graph Cuts And Random Walker Which Yields A New Algorithm,” in ICCV 2007.
 - ◇ **A.K. Sinop**, L. Grady, “Uninitialized, Globally Optimal, Graph-Based Rectilinear Shape Segmentation — The Opposing Metrics Method,” in ICCV 2007.
 - ◇ **A.K. Sinop**, L. Grady, “Accurate Banded Graph Cut Segmentation of Thin Structures Using Laplacian Pyramids,” in MICCAI 2006.
- OTHER PUBLICATIONS
- ◇ V. Guruswami, **A.K. Sinop**, “Certifying Graph Expansion and Non-Uniform Sparsity via Generalized Spectra,” manuscript.
 - ◇ V. Guruswami, **A.K. Sinop**, Y. Zhou “Constant Factor Lasserre Gaps for Graph Partitioning Problems,” manuscript.

- ◇ I. Koutis, G. L. Miller, **A.K. Sinop**, D. Tolliver, “Combinatorial Preconditioners and Multilevel Solvers for Problems in Computer Vision and Image Processing,” as Technical Report CMU, 2009.

SCHOLARSHIPS
AND AWARDS

- ◇ Awarded Fellowship from Carnegie Mellon University, School of Computer Science, Computer Science Department.
- ◇ Awarded University of Pennsylvania Dean’s Fellowship which includes stipend and tuition, 2004-2005.
- ◇ Awarded Bilkent University Full Scholarship which includes stipend and tuition, 2000-2004.
- ◇ Awarded TÜBİTAK (National Science and Technology Council of Turkey) Scholarship for Success in Informatics Olympiads which includes stipend, 2000-2004.
- ◇ Represented Turkey in 11th International Olympiads in Informatics, Antalya, Turkey, 1999.
- ◇ Won Bronze Medal in 7th Balkan Olympiads in Informatics, Ioanina, Greece, 1999.
- ◇ Won Silver Medal in 6th TÜBİTAK (National Science and Technology Council of Turkey) National Olympiads in Informatics, Ankara, Turkey, 1998.

REFERENCES

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