

Shipra Agrawal

102 Hoskins Ct., #119
Stanford, CA 94305

shipra@stanford.edu
<http://www.stanford.edu/~shipra>

Research Interests Optimization under uncertainty, Linear and Nonlinear optimization, Graph algorithms, Prediction Markets and game theory.

Education

Stanford University Sep. 2006 -
PhD, Computer Science and Engineering
Relevant courses (Audit/Credit): Randomized Algorithms, Algorithmic Game Theory, Linear and Nonlinear Optimization, Theory of Probability, Modern Coding Theory, Advanced Graph Algorithms

Indian Institute of Science, Bangalore, India July 2002 - July 2004
M.E., Computer Science and Engineering

M.B.M. Engineering College, Jodhpur, India July 1998 - July 2002
B.E., Computer Science and Engineering

Work Experience

IBM Almaden Research Center (*intern*) June 15, 2008 - Sep 19, 2008
California, USA
Worked on interior point methods for stochastic programming with Dr. Nimrod Meggido.

Bell Labs Research, Lucent Technologies Dec 2004 - Aug 2006
Bangalore, India
Designed efficient approximation algorithms for placement of network monitors in order to detect single link-level anomalies from path-level measurements.

Yahoo! Software India Pvt. Ltd. Aug 2004 - Dec 2004
Bangalore, India
Designed algorithms for automatic extraction of information from unstructured web pages.

Publications

1. Shipra Agrawal, Yichuan Ding, Amin Saberi, Yinyu Ye, *Correlation Robust Stochastic Optimization*, SODA 2010 (to appear).
2. Shipra Agrawal, Nimrod Megiddo, Benjamin Armbruster, *Equilibrium in Prediction Markets with Buyers and Sellers*, IBM Research Report RJ10453, IBM Almaden Research Center, San Jose, CA, October 2009.
3. Shipra Agrawal, Erick Delage, Mark Peters, Zizhuo Wang, Yinyu Ye, *A Unified Framework for Dynamic Parimutuel Information Market Design*, EC 2009.
4. Shipra Agrawal, Zizhuo Wang, Yinyu Ye, *Parimutuel Betting on Permutations*, WINE 2008.
5. Shipra Agrawal, K. V. M. Naidu, Rajeev Rastogi, *Diagnosing Link-Level Anomalies Using Passive Probes*, INFOCOM 2007.
6. Shipra Agrawal, Supratim Deb, K.V. M. Naidu, Rajeev Rastogi, *Efficient Detection of Distributed Constraint Violations*, short paper, ICDE 2007.
7. Shipra Agrawal, C. N. Kanthi, K. V. M. Naidu, Jeyashankher Ramamirtham, Rajeev Rastogi, Scott Satkin, Anand Srinivasan, *Monitoring infrastructure for converged networks and services*, Bell Labs Technical Journal 12(2): 63-77 (2007).

8. Shipra Agrawal, P. P. S. Narayan, Jeyashankher Ramamirtham, Rajeev Rastogi, Mark Smith, Ken Swanson, Marina Thottan: VoIP service quality monitoring using active and passive probes, COMSWARE 2006.
9. Shipra Agrawal, J. R. Haritsa, *A Framework for High-Accuracy Privacy-Preserving Mining*, ICDE 2005.
10. Shipra Agrawal, V. Krishnan, J. R. Haritsa, *On Efficiency concerns in Privacy Preserving Data Mining*, Proc. of 9th International Conference on Database Systems For Advanced Applications (DASFAA) 2004.

Invited Talks

- *A Unified Framework for Dynamic Parimutuel Information Market Design*, International Symposium on Mathematical Programming (ISMP), August 2009, Chicago.
- *Parimutuel Betting on Permutations*, Bay Area Game Theory Symposium (BAGT), April 2008.
- *Privacy Preserving Data Mining*, COMAD 2005, Goa, India.

Patents Filed

- Shipra Agrawal, K.V. M. Naidu, Rajeev Rastogi, *Anomaly Detection and Diagnosis using Passive Monitoring*.

References

- Prof. Yinyu Ye (*Advisor*), Department of Management Science and Engineering, Stanford University, USA. *Email: yinyu-ye@stanford.edu*
- Prof. Amin Saberi, Department of Management Science and Engineering, Stanford University, USA. *Email: saberi@stanford.edu*
- Dr. Nimrod Meggido, IBM Almaden Research Center, USA. *Email: megiddo@almaden.ibm.com*