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Education:

Ph.D. Computer Science *August 2008*
University of Iowa, Iowa City, Iowa
Thesis Title: *“Scheduling and Embedding Algorithms for Wireless Networks”*
Supervisor: Professor Sriram V. Pemmaraju

B.S. Computer Science *Dec. 1998*
University of Iowa, Iowa City, Iowa

Positions Held:

Sept. 2008 – present	Post-doctoral Fellow	Department of Computing Science, University of Alberta
Aug. 2005 – May 2008	Various Research Assistant Positions	College of Engineering, University of Iowa
Jun. 2007 – Aug. 2007	Research Intern	Virginia Bioinformatics Institute, Virginia Tech
Aug. 2000 – May 2005	Teaching Assistant	Department of Computer Science, University of Iowa
Jan. 1999 – Jan 2000	Programmer	National Advanced Driving Simulator, University of Iowa

Research Interests:

Approximation Algorithms, Computational Geometry, Distributed Computing, Wireless Networks.

Awards and Honors:

- [5/08] University of Iowa Graduate College Summer 2008 Dissertation Fellowship.
- [6/06] ACM-SIAM Student Travel Award (\$500) to participate in SIAM Conference on Discrete Mathematics, June 25–28, 2006, University of Victoria, Victoria, B.C., Canada.

Publications:

Journal:

- [3] Shifting Strategy for Geometric Graphs Without Geometry. *To appear in special issue of Journal of Combinatorial Optimization for ISAAC 2009.*
- [2] Clustering to Minimize the Sum of Radii. (with Matt Gibson, Gaurav Kanade Erik Krohn, and Kasturi Varadarajan.) *To appear in special issue of Algorithmica for SWAT 2008.*
- [1] Topology Control and Geographic Routing in Realistic Wireless Networks. (with Kevin Lillis and Sriram V. Pemmaraju.) *Special issue of Ad Hoc & Sensor Wireless Networks: An International Journal*, 6(3-4):265-295, 2008.

Conference:

- [12] Algorithms for Dominating Set in Disk Graphs: Breaking the $\log n$ Barrier, (with Matt Gibson). In *ESA 2010*, to appear.
- [11] A Weakly Robust PTAS for Minimum Clique Partition in Unit Disk Graphs, (with Mohammad R. Salavatipour). In *SWAT 2010*, to appear.
- [10] Shifting Strategy for Geometric Graphs Without Geometry. In *ISAAC 2009*, pages 362-371.
- [9] On the Complexity of Minimum Partition of Frequency-Agile Networks . (with V.S. Anil Kumar, Madhav Marathe, and Sriram V. Pemmaraju.) In *DySPAN 2008*.
- [8] On Metric Clustering to Minimize Sum of Radii. (with Matt Gibson, Gaurav Kanade, Erik Krohn, and Kasturi Varadarajan.) In *SWAT 2008* , pages 282-293.
- [7] On Clustering to Minimize Sum of Radii. (with Matt Gibson, Gaurav Kanade, Erik Krohn, and Kasturi Varadarajan.) In *SODA 2008*, pages 819-825.
- [6] Good Quality Virtual Realization of Unit Ball Graphs. (with Sriram V. Pemmaraju.) In *ESA '07: Proceedings of fifteenth Annual European Symposium on Algorithms*, pages 311-322, Heidelberg, Germany, 2007. Springer-Verlag.
- [5] Topology Control and Geographic Routing in Realistic Wireless Networks. (with Kevin Lillis and Sriram V. Pemmaraju.) In *Adhoc-Now '07: Proceedings of sixth International Conference on AD-HOC Networks & Wireless*, pages 15-31, Heidelberg, Germany, 2007. Springer-Verlag.
- [4] Energy conservation via domatic partitions. (with Sriram V. Pemmaraju.) In *MobiHoc '06: Proceedings of the seventh ACM international symposium on Mobile ad hoc networking and computing*, pages 143–154, New York, NY, USA, 2006. ACM Press.
- [3] Oriented Edge Colorings and Link Scheduling in Sensor Networks. (with Ted Herman and Sriram V. Pemmaraju.) In *SENSORWARE/COMSWARE '06: Proceedings of the first International Conference on Communication Software and Middleware*, New Dehli, India, 2006.
- [2] Introduction to the Non-Rigid Image Registration Evaluation Project. (with Gary Christensen, Xijuan Geng, Jon Kuhl, Joel Bruss, Thomas Grabowski, Michael Vannier, John Allen, and Hanna Damasio.) In *WBIR '06: Proceedings of Biomedical Image Registration*, pages 128–135, Heidelberg, Germany, 2006. Springer-Verlag.
- [1] A Composite Stabilizing Data Structure. (with Ted Herman.) In *WSS '01: Proceedings of the fifth International Workshop on Self-Stabilizing Systems*, pages 167-182, Heidelberg, Germany, 2001. Springer-Verlag.

Talks/Presentations:

- [4] *Dec. 2009:* Shifting Strategy for Geometric Graphs Without Geometry. *20th. International Symposium on Algorithms and Computation (ISAAC 2009)*. Honolulu, Hawaii, USA.
- [3] *Nov. 2007:* Good Quality Virtual Realization of Unit Disk Graphs. *55th. Midwest Theory Day*. University of Chicago, Chicago, Illinois, U.S.A.
- [2] *Oct. 2007:* Good Quality Virtual Realization of Unit Disk Graphs. *15th. Annual European Symposium on Algorithms*. Eilat, Israel. (Tele-talk due to travel/visa restrictions.)
- [1] *June 2006:* Extending the Lifetime of Wireless Networks while Ensuring Coverage. *2006 SIAM Conference on Discrete Mathematics*. Victoria, B.C., Canada.

Professional Service:

Refereeing: *Journals:* Algorithmica. *Conferences:* Symposium on Computational Geometry (SoCG), On Principles of Distributed Computing (OPODIS), International Conference on Distributed Computing and Networking (ICDCN), Symposium on Discrete Algorithms (SODA), Workshop on Algorithms and Computation (WALCOM), Computing and Combinatorics Conference (COCOON).

Professional Membership:

Society for Industrial and Applied Mathematics (SIAM); Association for Computing Machinery (ACM); European Association for Theoretical Computer Science (EATCS).

Languages and Tools:

C, C++, Java, SmallTalk, Prolog, PASCAL, FORTRAN, Xlib, Matlab, Mathematica, OpenGL, Perl, csh, ksh, Miranda, MC-68000 assembly, L^AT_EX, GLUT, Alias, OpenFlight API, BMRT shading language, and MultiGen.

References:**Sriram V. Pemmaraju**

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