

## Publications of Anil Maheshwari

### Currently Under Review

- S. Roy, A. Maheshwari and S. C. Nandy, Minimum perimeter convex object enclosing a given number of points, submitted April 2010.
- J. Augustine, S. Das, A. Maheshwari, S.C. Nandy, S. Roy and Swami Sarvattomananda, Recognizing largest empty axis-parallel rectangle and circle in desired location, submitted April 2010.
- A. Maheshwari, J.-R. Sack, K. Shahbaz and H. Zarrabi-Zadeh, Frechet distance with speed limits, submitted November 2009 (preliminary version in CCCG 2009).
- P. Bose, A. Maheshwari, C. Shu and S. Wuhrer, A survey of geodesic paths on 3D surfaces, submitted August 2009
- M. Ahmed, A. Maheshwari, S. Nandy and S. Roy, On the number of shortest descent paths on the surface of a convex terrain, submitted July 2009.
- C. Dillabaugh, M. He and A. Maheshwari, Succinct and I/O efficient data structures for traversal in trees, submitted January 2008 (preliminary version appeared in ISAAC 2008).
- S. Ghosh, P. Goswami, A. Maheshwari, S. Nandy, S. P. Pal and Swami Sarvattomananda, Algorithms for computing diffuse reflection paths in polygons, submitted December 2009 (preliminary version to appear in WALCOM 2009).
- F. DEHNE, A. MAHESHWARI and R. TAYLOR, An improved algorithm for Hausdorff Voronoi Diagram for non-crossing sets, submitted in May 2006 (preliminary version appeared in ICPP 2006).

### Refereed Journal Publications

- G. Hickey, M. Blanchette, P. Carmi, A. Maheshwari and N. Zeh, NAPX: A polynomial time approximation scheme for the Noah's ark problem, to appear in IEEE/ACM Trans. on Comp. Bio and Bioinformatics.(preliminary version appeared in 8th International Workshop on Algorithms in Bioinformatics (WABI), LNCS 5252: 76–86, Germany, September 2008)

- P. Bose, E.Y. Chen, M. He, A. Maheshwari and P. Morin, Succinct geometric indexes supporting point location queries, to appear in *Transaction on Algorithms* (preliminary version appeared in 20th ACM-SIAM SODA 2009: 635–644).
- L. Aleksandrov, H. Djidjev, H. Guo, A. Maheshwari, D. Nussbaum and J.-R. Sack, Approximate shortest path queries on weighted polyhedral surfaces, to appear in *Discrete and Computational Geometry*, accepted June 2009 (preliminary version appeared in 31st MFCS, Stara Lesna, Slovakia, August 2006).
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- P. Bose, P. Carmi, M. Farshi, A. Maheshwari and M. Smid, Computing the greedy spanner in near-quadratic time, to appear in *Algorithmica* (preliminary version appeared in 11th SWAT, LNCS, July 2008).
- P. BOSE, S. COLLETTE, S. LANGERMAN, A. MAHESHWARI, P. MORIN, M. SMID, Sigma-Local Graphs, to appear in *Discrete Algorithms*.
- P. Bose, P. Carmi, M. Couture, A. Maheshwari, P. Morin and M. Smid, Spanners of Complete k-Partite Geometric Graphs, *SIAM Journal of Computing* 38 (5): 1803–1820 (preliminary version appeared in LATIN 2008).
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## Theses

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### **In Books**

- A. MAHESHWARI and N. ZEH, A Survey of Techniques for Designing I/O-Efficient Algorithms, Algorithms for Memory Hierarchies, eds. U. Meyer, P. Sanders, J. Sibeyn, LNCS 2625: 36-61, 2003 (Springer-Verlag).
- A. MAHESHWARI, J.R. SACK and H. DJIDJEV, Link Distance Problems, Handbook on Computational Geometry, 2000 Elsevier Science B.V., pp. 519–558.

### **Conference Proceedings/Presentations/Videos(Not-Refereed)**

- A. Maheshwari, J.-R. Sack and K. Shanbaz, Frechet distance with speed limits, CCCG 2009, Vancouver, Canada.
- T. Asano, P. Bose, P. Carmi, A. Maheshwari, C. Shu, M. Smid and S. Wuhler, Linear space algorithms for distance preserving embedding, 19th Canadian Conference on Computational Geometry, Ottawa, 2007.
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