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Journal Publications:

- Arslan, A. N. (2008) An algorithm with linear expected running time for string editing with substitutions and substring reversals. *Information Processing Letters,* 106(5):213-218
- Arslan, A. N. (2007) Regular expression constrained sequence alignment. *Journal of Discrete Algorithms,* Elsevier, 5(4), 647-661
- He, D., Arslan, A. N., and Ling, A. C. H. (2006) A fast algorithm for the constrained multiple sequence alignment problem. *Acta Cybernetica*, 17: 701-717
- Chen, G., Wu, X., Zhu, X., Arslan, A. N., and He, Yu. (2006) Efficient string matching with wildcards and length constraints. *Knowledge and Information Systems*, 10(4):399-419
- He, D and Arslan, A. N. (2005) A space-efficient algorithm for the pairwise sequence alignment algorithm. *Genome Informatics*, 16(2): pp. 237–246
- Arslan, A. N. and Egecioglu, O. (2005) Algorithms for the constrained longest common subsequence problems. *International Journal of Foundations of Computer Science*, (16)6:1099-1111, December 2005
- Arslan, A. N. and Egecioglu, O. (2004) Dynamic programming based approximation algorithms for sequence alignment with constraints. *INFORMS Journal on Computing, Special issue on Computational Molecular Biology/Bioinformatics,* Vol. 16, No. 4, pp. 441-458
- Arslan, A. N. and Egecioglu, O. (2004) Dictionary look-up within small edit distance. *International Journal of Foundations of Computer Science,* Vol. 15, No 1, pp. 57-71, February 2004
- Arslan, A. N. and Egecioglu, O. (2002) Approximation algorithms for local alignment with length constraints. *International Journal of Foundations of Computer Science* 13:751-567
- Arslan, A. N., Egecioglu, O. and Pevzner, P.A. (2001) A new approach to sequence comparison: normalized sequence alignment. *Bioinformatics* 17:327-337
- Arslan, A. N. and Egecioglu, O. (2000) Efficient algorithms for normalized edit distance. *Journal of Discrete Algorithms* (Special Issue on Matching Patterns) 1(1):3-20

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- Arslan A. N., Sirakov, N. M., and Attardo, S. (2012) Weapon Ontology Annotation Using Boundary Describing Sequences. In Proceedings of the2012 IEEE Southwest Symposium on Image Analysis and Interpretation, April 22-24, 2012, Santa Fe, New Mexico
- Arslan, A. N. and Chidri, Arvind (2011) A clustering-based matrix multiplication algorithm. In Proceedings of International Conference on Scientific Computing (CSC 2011), pp. 303-307

- Arslan, A. N. and Chidri, Arvind (2010) An efficient multiplication algorithm for thin matrices and for matrices with similar rows and columns. In Proceedings of International Conference on Scientific Computing (CSC 2010), pp. 147-152

- Arslan, A. N (2010) Heuristic algorithms for local sequence alignment with inversions and reversals. The 15th Anniversary Celebration, Transformative Systems Conference, SDPS 2010, Dallas, TX, June 6-11, 2010

- Arslan, A. N. (2010) A fast longest common subsequence algorithm for similar strings. The 4th International Conference on Language and Automata Theory and Applications (LATA 2010), Trier, Germany, May 24-28, 2010, Lecture Notes in Computer Science 6031, pp. 82-93

- Arslan, A. N. (2007) Sequence alignment guided by common motifs described by context free grammars (The 4th Biotechnology and Bioinformatics Symposium (BIOT) 2007), October 19-20, Colorado Springs, CO

- Arslan, A. N. and Bizargity, P. (2007) Phylogeny by top down clustering using a given multiple alignment. *The Proceedings of the 7th IEEE Symposium on Bioinformatics and Biotechnology (BIBE 2007)*, Vol. II, pp. 809-814, Harvard Medical School, Boston, Massachusetts, October 14-17, 2007

- He, D., Arslan, A. N., He, Y. and Wu, X. (2007) Iterative refinement of repeat sequence specification using constrained pattern matching. *The Proceedings of the 7th IEEE Symposium on Bioinformatics and Biotechnology (BIBE 2007)*, Vol. II, pp. 1199-1203, Harvard Medical School, Boston, Massachusetts, October 14-17, 2007

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- He, Y., Wu, X., Zhu, X. and Arslan, A. N. (2007) Mining Frequent Patterns with Wildcards from Biological Sequences. *Proc. of the IEEE International Conference on Information Reuse and Integration (IEEE IRI-07)*, pp. 329-334, Las Vegas, August 13-15, 2007

- Arslan, A. N. (2006) An algorithm with linear expected running time for string editing with substitutions and substring reversals. The Proceedings of the Biotechnology and Bioinformatics Symposium (BIOT-2006), pp. 90-96, Provo, Utah, October 20-21, 2006

- Arslan, A. N. and He, D. (2006) An improved algorithm for the regular expression constrained multiple sequence alignment problem. The Proceedings of the 6th IEEE Symposium on Bioinformatics and Biotechnology (BIBE 2006), pp. 121-126, Washington, DC, October 16-18, 2006

- Arslan, A. N. (2006) An algorithm for string edit distance allowing substring reversals. The Proceedings of the 6th IEEE Symposium on Bioinformatics and Biotechnology (BIBE 2006), pp. 220-226, Washington, DC, October 16-18, 2006

- He, D. and Arslan, A. N. (2006) FastPCMSA: An Improved Parallel Algorithm for the constrained multiple sequence alignment problem. FCS'06 - The 2006 International Conference on Foundations of Computer Science, pp. 88-94, Monte Carlo Resort, Las Vegas, Nevada, June 26-29, 2006

- He, D. and Arslan, A. N. (2006) Space-efficient algorithms for the constrained multiple sequence alignment problem. BIOCOMP'06- The 2006 International Conference on Bioinformatics & Computational Biology, pp. 10-16, Monte Carlo Resort, Las Vegas, Nevada, June 26-29, 2006
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- Zheleva, E. and Arslan, A. N. (2006) Fast motif search in protein sequence databases. International Computer Science Symposium in Russia (CSR 2006), *Lecture Notes in Computer Science 3967,* pp. 670-681*,* St.Petersburg, Russia, June 8-12, 2006

- Arslan, A. N. (2006) Efficient approximate dictionary look-up for long words over small alphabets. Lecture Notes in Computer Science 3887, pp. 118-129, Latin American Theoretical Informatics LATIN'06, Valdivia, Chile, March 20-24, 2006 (see also http://www14.in.tum.de/personen/nowakj/)

- Singh, D. R. , Arslan, A. N, and Wu, X. (2006) Using an extended suffix tree to speed-up sequence alignment. *IADIS International Conference on Applied Computing*, pp. 655-660, San Sebastian, Spain, February 25-28, 2006
- Arslan, A. N. (2005) Multiple sequence alignment containing a sequence of regular expressions, Proc. *IEEE Symposium on Computational Intelligence in Bioinformatics and Computational Biology (CIBCB'05)*, pp. 230-236, La Jolla, November 14-15, 2005

- He, Dan and Arslan, A. N. (2005) A parallel algorithm for the constrained multiple sequence alignment problem, Proc. *IEEE the 5th Symposium on Bioinformatics and Biotechnology (BIBE'05),* pp. 258-262, Minneapolis, Minnesota, October 19-21, 2005

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- He, Dan and Arslan, A. N. (2005) A fast algorithm for the constrained multiple sequence problem. Proceedings. *11th International Conference on Automata and Formal Languages (AFL 2005),* Zoltan Esik, Zoltan Fulop (Eds.) Institute of Informatics, University of Szeged, pp. 131-143, Dobogoko, Hungary, May 17-20, 2005
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- Arslan, A. N. and Egecioglu, O. (2001) An improved upper bound on the size of planar convex-hulls. *Lecture Notes in Computer Science* 2108:111-120*, COCOON, Guilin, China, August 20-23, 2001
- Arslan, A. N. and Egecioglu, O. and Pevzner, P.A. (2001) A new approach to sequence alignment: normalized sequence alignment. *The Fifth Annual International Conference on Computational Molecular Biology (RECOMB 2001)*, pp. 2-11, Montreal, Canada,, April 22-25, 2001
- Arslan, A. N. and Egecioglu, O. (1999) An efficient uniform-cost normalized edit distance algorithm. IEEE Computer Society 6th International Symposium on String Processing and Information Retrieval (SPIRE 1999), pp. 8-15, Cancun, Mexico, September 22-24, 1999

Other Publications

- J. Zhang, G. Li, J. Y. Yang Editors, and A. Arslan et al. Associate Editors. (2009) The Proceeding of the international conferences on bioinformatics, systems biology, and intelligent computing. IEEE Computer Society, ISBN 978-0-7695-3739-9

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- Arslan, A. N. (2004) Algorithmic methods in bioinformatics, Biyoinformatik-II (Bioinformatics Graduate Summer School II, Sile/Turkey), pp. 1-11, August,2004 (Editors: Azmi Telefoncu, Fikrettin Sahin, Ali Kilinc), ISBN=975-483-637-X

- Arslan, A. N. (2004) Sequence alignment, Biyoinformatik-II (Bioinformatics Graduate Summer School II, Sile/Turkey), pp. 101-114, August,2004 (Editors: Azmi Telefoncu, Fikrettin Sahin, Ali Kilinc), ISBN=975-483-637-X

- Arslan, A. N. (2002) Algorithms for string similarity with constraints. Ph.D. Thesis at University of California, Santa Barbara. Published by UMI, Ann Arbor