

Alejandro Erickson's Publications

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Refereed Journal Publications

- A. Erickson, A. E. Kiasari, J. Navaridas, and I. A. Stewart.
The Stellar Transformation: From Interconnection Networks to Datacenter Networks. Journal of Computer Networks, 113:29–45, 2017.
- A. Erickson, A. E. Kiasari, J. Navaridas, and I. A. Stewart.
An Optimal Single-Path Routing Algorithm in the Datacenter Network DPillar. IEEE Trans. Parallel Distrib. Syst., 2016 (14 pages, to appear).
- E. Chambers, A. Erickson, S. Fekete, J. Lenchner, J. Sember, S. Venkatesh, U. Stege, S. Stolpner, C. Weibel, and S. Whitesides.
Connectivity Graphs of Uncertainty Regions. Algorithmica, 2016 (30 pages, to appear).
- X. Wang, A. Erickson, J. Fan, and X. Jia.
Hamiltonian Properties of DCell Networks. The Computer Journal, 58(11):2944–2955, 2015.
- A. Erickson and M. Schurch.
Monomer-dimer tatami tilings of square regions. Journal of Discrete Algorithms, 16(0):258–269, 2012.
- A. Erickson.
Sums of squares and negative correlation for spanning forests of series parallel graphs. The Australasian Journal of Combinatorics, 52:75–89, 2012.
- A. Erickson, A. Isgur, B. W. Jackson, F. Ruskey, and S. M. Tanny.
Nested Recurrence Relations with Conolly-like Solutions. SIAM Journal on Discrete Mathematics, 26(1):206–238, 2012.
- A. Erickson, F. Ruskey, M. Schurch, and J. Woodcock.
Monomer-Dimer Tatami Tilings of Rectangular Regions. The Electronic Journal of Combinatorics, 18(1):24, 2011.

Refereed Conference Publications

- A. Erickson, A. E. Kiasari, J. Navaridas, and I. A. Stewart.
An efficient shortest-path routing algorithm in the data centre network DPillar. Proc. of the 9th Annual International Conference on Combinatorial Optimization and Applications (COCOA), LNCS, 9486, 209–220, 2015.
- A. Erickson, A. E. Kiasari, J. Navaridas, and I. A. Stewart.
Routing Algorithms for Recursively-Defined Data Centre Networks. Trustcom/BigDataSE/ISPA, 2015 IEEE, 3, 84–91, 2015.
- A. Erickson and F. Ruskey.
Generating Tatami Coverings Efficiently. Proc. of the international conference Génération Aléatoire de Structures Combinatoires (GASCom), Bertinoro, Italy, 2014.
- A. Erickson and F. Ruskey.
Domino Tatami Covering is NP-complete. Proc. of the International Workshop on Combinatorial Algorithms (IWOCOA), LNCS, 8288, 140–149, 2013.
- A. Erickson.
TatamiMaker: A combinatorially rich mechanical game board. Proc. of the international conference Bridges: Mathematics, Music, Art, Architecture, Culture, 63–70, 2013.

- A. Erickson and M. Schurch.
Enumerating Tatami Mat Arrangements of Square Grids. Proc. of the International Workshop on Combinatorial Algorithms (IWOCA), LNCS, 7056, 223–235, 2011.
- M. Cheng, E. Delisle, A. Erickson, S. Ganti, F. Mason, N. Vining, and S. Whitesides.
Collaborative problem solving: integrating theory and practice in the classroom. Proc. of the 15th Western Canadian Conference on Computing Education, WCCCE '10, 15:1–15:5, 2010.
- E. Chambers, A. Erickson, S. Fekete, J. Lenchner, J. Sember, S. Venkatesh, U. Stege, S. Stolpner, C. Weibel, and S. Whitesides.
Connectivity Graphs of Uncertainty Regions. Proc. of the International Symposium on Algorithms and Computation (ISAAC), LNCS, 6507, 434–445, 2010.

Theses

- A. Erickson.
Monomino-Domino Tatami Coverings. Computer Science, University of Victoria, 2013.
- A. Erickson.
Negative Correlation Properties for Matroids. Combinatorics and Optimization, University of Waterloo, 2008.

Papers in Preparation or Submitted

- A. Erickson and I. A. Stewart.
The influence of data centre usage on symmetry in datacenter network design. Submitted to Theoretical Computer Science.
- A. Erickson, J. Pascual Saiz, J. Navaridas, and I. A. Stewart.
Improved Routing in the Data Centre Networks HCN and BCN. Submitted to Future Generation Computer Systems.
- A. Erickson, J. Pascual Saiz, J. Navaridas, and I. A. Stewart.
Routing Algorithms for Recursively-Defined Datacenter Networks. Submitted to IEEE Transactions on Networking.
- A. Erickson and I. A. Stewart.
Shortest Path Routing in DPillar Datacenter Networks via Cayley Graphs. Manuscript in preparation.
- A. Erickson, J. Pascual Saiz, J. Navaridas, and I. A. Stewart.
Interconnection Networks Research Flow Evaluation Framework (INRFlow). [Software], 2017.
- A. Erickson, J. Pascual Saiz, J. Navaridas, and I. A. Stewart.
Bisection Width of Dual-Port, Server-Centric Data Centre Networks. Manuscript in preparation.
- A. Erickson, J. Pascual Saiz, J. Navaridas, and I. A. Stewart.
Multipath Routing in the Datacenter Network DPillar. Manuscript in preparation.
- A. Erickson and F. Ruskey.
Enumerating Maximal Tatami Mat Coverings of Square Grids with v Vertical Dominoes. Manuscript in preparation.

Other Publications and Art

- A. Erickson.

Five 2-Colourings of the Petersen Graph. Juried art exhibition at Bridges 2014: Mathematics, Music, Art, Architecture, Culture, Seoul, Korea, 2014.

- A. Erickson, M. Guay-Paquet, and J. Lenchner.

Zero sumZ: The 7-card challenge. Published online, 2012.

- A. Erickson.

Tomoku! 80 Challenging Puzzles. Self Published, 2012.

- A. Erickson.

Japanese tatami mat tilings: No four tiles meet. Canadian Mathematical Society Student Committee Quarterly: Notes from the Margin, 2:1–3, 2011.