

Pier Reviewed Journals

- [1] Victor Boyarshinov and Malik Magdon-Ismael. Efficient computation of optimal trading strategies. **submitted to *Quantitative Finance*, 2004. revision submitted, pending.**
- [2] Cindy Hui, Mark Goldberg, Malik Magdon-Ismael, and William A. Wallace. Simulating the diffusion of information: An agent-based modeling approach. *Special Issue on Agent-Directed Simulation, International Journal of Agent Technologies and Systems*, 2010. (invited paper, in press).
- [3] Ali Civril and Malik Magdon-Ismael. On selecting a maximum volume sub-matrix of a matrix and related problems. *Theoretical Computer Science*, In Press, 2009.
- [4] Costas Busch and Malik Magdon-Ismael. Atomic routing games on maximum congestion. *Theoretical Computer Science*, In Press, 2009.
- [5] Hung-Ching (Justin) Chen, Mark Goldberg, Malik Magdon-Ismael, and Al Wallace. Reverse engineering an agent-based hidden markov model for complex social systems. *International Journal of Neural Systems*, 18(6):491–526, December 2008.
- [6] Jeff Baumes, Hung-Ching Chen, Matthew Francisco, William Wallace, Malik Magdon-Ismael, and Mark Goldberg. Visage: A virtual laboratory for simulation and analysis of social group evolution. *ACM Transactions on Autonomous and Adaptive Systems (TAAS)*, 3(3):1–35, August 2008.
- [7] Nathan Cole, Heidi Joe Newberg, Malik Magdon-Ismael, Travis Desell, Kristopher Dawsey, Warren Hayashi, Xinyang (Fred) Liu, Jonathan Purnell, Boleslaw Szymanski, Carlos Varela, and James Wisniewski. Maximum likelihood fitting of tidal streams with application to the sagittarius dwarf tidal tails. *The Astrophysical Journal*, 683:750–766, 2008.
- [8] Volkan Isler and Malik Magdon-Ismael. Sensor selection in arbitrary dimensions. *IEEE Tran. Automation Science and Engineering*, 5(4):651–660, 2008.
- [9] Costas Busch, Malik Magdon-Ismael, Fikret Sivrikaya, and Bulent Yener. Contention-free mac protocols for wireless sensor networks. *Distributed Computing*, 21(1):23–42, 2008. Preliminary version appears in DISC 2004.
- [10] Costas Busch, Malik Magdon-Ismael, and Jing Xi. Optimal oblivious path selection on the mesh. *IEEE Transactions on Computers*, 57(5):660–671, 2008.
- [11] Malik Magdon-Ismael and Joseph Sill. A linear fit gets the correct monotonicity directions. *Machine Learning*, 70(1):21–43, 2008. Online First. Preliminary version appears in COLT 2003.
- [12] Sibel Adali, Brandeis Hill, and Malik Magdon-Ismael. Information vs. robustness in rank aggregation: Models, algorithms and a statistical framework for evaluation. (*accepted to appear in*) *Journal of Digital Information Management (JDIM), special issue on Web Information Retrieval*, 2007.
- [13] Costas Busch, Malik Magdon-Ismael, and Marios Mavronicolas. Efficient bufferless packet switching on trees and leveled networks. *Journal of Parallel and Distributed Computing*, 67:1168–1186, 2007. Preliminary versions appear in EURO-PAR 2004,2005.
- [14] Costas Busch, Malik Magdon-Ismael, and Marios Mavronicolas. Universal bufferless packet switching. *SIAM Journal on Computing*, 37(4):1139–1162, 2007. Preliminary version appears in Workshop on Approximate and Online Algorithms (WAOA) 2004.
- [15] Victor Boyarshinov and Malik Magdon-Ismael. Efficient optimal linear boosting of a pair of classifiers. *IEEE Transactions on Neural Networks*, 18(2):317–328, 2007.
- [16] Victor Boyarshinov and Malik Magdon-Ismael. Linear time isotonic and unimodal regression in the L_1 and L_∞ norms. *Journal of Discrete Algorithms*, 4(4):676–691, December 2006.
- [17] Costas Busch, Malik Magdon-Ismael, Marios Mavronicolas, and Paul Spirakis. Direct routing: Algorithms and Complexity. *Algorithmica*, 45(1):45–68, 2006. Invited for Special Issue from European Symposium on Algorithms (ESA) 2004.

- [18] Malik Magdon-Ismail, Fikret Sivrikaya, and Bulent Yener. Joint problem of power optimal connectivity and coverage in wireless sensor networks. *Wireless Networks*, 13(4):537–550, 2006.
- [19] Malik Magdon-Ismail, Costas Busch, and Mukkai Krishnamoorthy. Hardness results for cake-cutting. *Bulletin of the European Association for Theoretical Computer Science*, (86):85–106, June 2005.
- [20] Malik Magdon-Ismail and Amir F. Atiya. Maximum drawdown. *Risk*, 17(10):99–102, October 2004.
- [21] Malik Magdon-Ismail, Amir F. Atiya, Amrit Pratap, and Yaser S. Abu-Mostafa. On the maximum drawdown of a Brownian motion. *Journal of Applied Probability*, 41(3):147–161, March 2004.
- [22] Malik Magdon-Ismail and Amir F. Atiya. A maximum likelihood approach to variance estimation of a Brownian motion using the high, low and close. *Quantitative Finance*, 3:376–384, August 2003.
- [23] Malik Magdon-Ismail and Amir F. Atiya. Density estimation and random variate generation using multi-layer networks. *IEEE Trans. on Neural Networks*, 13(3):497–520, May 2002.
- [24] Malik Magdon-Ismail. The equivalent martingale measure: An introduction to pricing using expectations. *IEEE Transactions on Neural Networks*, 12(4):684–693, July 2001.
- [25] Eric Breimer, Mark K. Goldberg, Brian T. Kolstad, and Malik Magdon-Ismail. On the height of a random set of points in a d-dimensional unit cube. *Experimental Mathematics*, 10(4):583–597, 2001.
- [26] Malik Magdon-Ismail and Amir F. Atiya. The early restart problem. *Neural Computation*, 12(6):1303–1313, June 2000.
- [27] Malik Magdon-Ismail. No free lunch for noise prediction. *Neural Computation*, 12(3):547–565, March 2000.
- [28] Malik Magdon-Ismail, Alexander Nicholson, and Yaser S. Abu-Mostafa. Financial markets: Very noisy information processing. *Proceedings of the IEEE: Special Issue on Information Processing*, 86(11):2184–2195, November 1998. (invited paper).
- [29] Zehra Cataltepe, Yaser S. Abu-Mostafa, and Malik Magdon-Ismail. No free lunch for early stopping. *Neural Computation*, 11(4):995–1010, May 1998.
- [30] Malik Magdon-Ismail and Yaser S. Abu-Mostafa. Validation of volatility models. *Journal of Forecasting*, 17:349–368, September 1998.

Pier Reviewed Conferences

- [1] Cindy Hui, Malik Magdon-Ismail, Mark Goldberg, and William Wallace. Weak ties and the diffusion of information in dynamic networks. In *NetSci 2010*, Boston, MA, 2010. Poster presentation.
- [2] Malik Magdon-Ismail. Permutation complexity bound on out-sample error. In *Proc. 24th Annual Conference on Neural Information Processing Systems (NIPS)*, 2010. (to appear).
- [3] Travis Dessel, Anthony Waters, Malik Magdon-Ismail, Boleslaw K. Szymanski, Carlos A. Varela, Matthew Newby, Heidi Newberg, Andreas Przystawik, and David Anderson. Accelerating the milkyway@home volunteer computing project with gpu. In *8th International Conference on Parallel Processing and Applied Mathematics, Part I (PPAM)*, Lecture Notes in Computer Science, Vol. 6067, pages 276–288, 2009.
- [4] Mark Goldberg, Stephen Kelley, Malik Magdon-Ismail, and William Wallace. Overlapping communities in social networks. In *Proc. Workshop on Social Network Analysis at KDD 2010 (SNAKDD)*, page (to appear), 2010.
- [5] Mark Goldberg, Stephen Kelley, Malik Magdon-Ismail, and William Wallace. Overlapping communities in social networks. In *Proc. 2nd Conference on Social Computation (SocialCom) 2010*, page (to appear), 2010.

- [6] Mark Goldberg, Mykola Hayvanovych, and Malik Magdon-Ismael. Measuring similarity between sets of overlapping clusters. In *Proc. Workshop on Social Intelligence (SIN) at SocialCom 2010*, page (to appear), 2010.
- [7] Malik Magdon-Ismael and Jonathan Purnell. Approximating the covariance matrix with low rank perturbations. In *Proc. 11th Int. Conf. on Intelligent Data Engineering and Automated Learning (IDEAL)*”, page to appear, Sept 2010.
- [8] Sanmay Das and Malik Magdon-Ismael. Collective wisdom: Information growth in wikis and blogs. In *Proc. ACM Conference on E-Commerce (EC 2010)*”, page to appear, June 2010.
- [9] Mark Goldberg, Mykola Hayvanovych, and Malik Magdon-Ismael. Measuring similarity between sets of overlapping clusters. In *Proc. Workshop on Social Network Analysis (at KDD 2010)*, 2010.
- [10] Nate Cole, Travis Desell, Daniel Lombraaa Gonzlez, Francisco Fernandez de Vega, Malik Magdon-Ismael, Heidi Newberg, Boleslaw Szymanski, and Carlos Varela. *Parallel and Distributed Computational Intelligence.*, volume 6 of *Studies in Computational Intelligence*, chapter Evolutionary Algorithms on Volunteer Computing Platforms: The MilkyWay@Home Project, pages 63–90. Springer-Verlag, Berlin, 2010.
- [11] Cindy Hui, Malik Magdon-Ismael, Mark Goldberg, and William Wallace. Agent based simulation of diffusion warnings. In *Proc. Agent-Directed Simulation Symposium (ADS)*, 2010. (to appear).
- [12] Malik Magdon-Ismael and Konstantin Mertsalov. A permutation approach to validation. In *Proc. 10th SIAM International Conference on Data Mining (SDM)*, 2010.
- [13] Travis Dessel, Malik Magdon-Ismael, Bolek Szymanski, Carlos Varela, Heidi Newberg, and Nathan Cole. Robust asynchronous optimization for volunteer computing grids. In *Proc. 5th International Conference e-Science*, pages 263–270, 2009.
- [14] Mark Goldberg, Malik Magdon-Ismael, Konstantin Mertsalov, and William Wallace. Stability of individual and group behavior in a blog network. In *Proceedings 2009 IEEE International Conference on Intelligence and Security Informatics*, pages 7–12, 2009.
- [15] Stephen Kelley, Mark Goldberg, Malik Magdon-Ismael, Konstantin Mertsalov, William Wallace, and Mohammed Zaki. graphont: An ontology based library for conversion from semantic graphs to jung. In *Proceedings 2009 IEEE International Conference on Intelligence and Security Informatics*, pages 170–172, 2009.
- [16] Mark Goldberg, Malik Magdon-Ismael, and Konstantin Mertsalov. Models of communication dynamics for simulation of information diffusion. In *Proceedings of Advances in Social Networks Analysis and Mining (ASONAM 2009)*, pages 44–49, 2009.
- [17] Jonathan Purnell and Malik Magdon-Ismael. Learning american english accents using ensemble learning with gmms. In *Proc. 8th International Conference on Machine Learning and Applications (ICMLA)*, 2009.
- [18] Christopher Wynnyk and Malik Magdon-Ismael. Pricing the american option using reconfigurable hardware. In *Proc. 7th IEEE/IFIP Conference on Embedded and Ubiquitous Computing (EUC-2009)*, pages 532–536, 2009.
- [19] C. Hui, , M. Goldberg, M. Magdon-Ismael, and W. Wallace. The impact of changes in network structure on diffusion of warnings. In *Proc. Workshop on Analysis of Dynamic Networks (SIAM International Conference on Data Mining)*, page (to appear), 2009.
- [20] Sanmay Das and Malik Magdon-Ismael. Collective wisdom: Information growth in wikis and blogs. In *NIPS Workshop "Beyond Search: Computational Intelligence for the Web"*, December 2008.
- [21] C. Hui, , M. Goldberg, M. Magdon-Ismael, and W. Wallace. Micro-simulation of diffusion on warnings. In F. Fiedrich and B. Van de Walle, editors, *Proc. 5th Int. Conf. on Information Systems for Crisis Response and Management ISCRAM*, pages 424–430, 2008.

- [22] Sanmay Das and Malik Magdon-Ismael. Adapting to a market shock: Optimal sequential market-making. In *Proc. Advances in Neural Information Processing Systems (NIPS)*, December 2008.
- [23] Ali Civril and Malik Magdon-Ismael. Deterministic sparse column based matrix reconstruction via greedy approximation of svd. In *Proc. 19th International Symposium on Algorithms and Computation (ISAAC) 2008*, Gold Coast, Australia, December 2008.
- [24] Mark Goldberg, Stephen Kelley, Malik Magdon-Ismael, Konstantin Mertsalov, and William Wallace. Communication dynamics of blog networks. In *Proc. SIGKDD Workshop on Social Network Mining and Analysis*, page ACM Digital Library, August 2008.
- [25] Mark Goldberg, Stephen Kelley, Malik Magdon-Ismael, and Konstantin Mertsalov. Stable statistics of the blogograph. In *Proc. Interdisciplinary Studies in Information Privacy and Security (ISIPS)*, 2008.
- [26] M. Hayvanovych, A. Hoonlor, M. Goldberg, S. Kelley, M. Magdon-Ismael, K. Mertsalov, B. Szymanski, and W. Wallace. Discovery, analysis and monitoring of hidden social networks and their evolution. In *Proc. IEEE Conference on Technologies for Homeland Security*, pages 1–6, May 2008. Digital Object Identifier 10.1109/THS.2008.4637294.
- [27] Yingjie Zhou, Mark Goldberg, Malik Magdon-Ismael, and William Wallace. A generative model for statistical determination of information content from conversation threads. In *Proc. Intelligence and Security Informatics (ISI) Workshops (SOCO)*, volume 5075 of *LNCS*, pages 331–342. Springer, 2008.
- [28] Mark Goldberg, Stephen Kelley, Malik Magdon-Ismael, and Konstantin Mertsalov. A locality model for the evolution of blog networks. In *Proc. Intelligence and Security Informatics (ISI)*, pages 191–193, 2008.
- [29] Fikret Sivrikaya, Costas Busch, Malik Magdon-Ismael, and Bulent Yener. Asand: Asynchronous slot assignment and neighbor discovery protocol for wireless networks. In *Proc. OPNETWORK 2007*, Washington DC., August 2007.
- [30] Hung-Ching (Justin) Chen, Mark Goldberg, Malik Magdon-Ismael, and Al Wallace. Reverse engineering an agent-based hidden markov model for complex social systems. In *Proc. International Conference on Intelligent Data Engineering and Automated Learning (IDEAL)*, pages 940–949, Birmingham, UK, December 2007.
- [31] Hung-Ching (Justin) Chen, Mark Goldberg, Malik Magdon-Ismael, and Al Wallace. Discover the power of social and hidden curriculum to decision making: Experiments with enron email and movie newsgroups. In *Proc. International Conference on Machine Learning and Applications (ICMLA)*, pages 154–159, Cincinnati, Ohio, December 2007.
- [32] Travis Desell, Nathan Cole, Malik Magdon-Ismael, Heidi Newberg, Bolek Szymanski, and Carlos Varela. Distributed and generic Maximum Likelihood evaluation. In *Proc. 3rd International Conference on e-Science and Grid Computing*, Bangalore, India, December 2007. **[Best Paper Award, 2nd place]**.
- [33] Hung-Ching (Justin) Chen, Mark Goldberg, Malik Magdon-Ismael, and Al Wallace. Learning what makes a society tick. In *Proc. Workshop on Optimization-based Data Mining Techniques with Applications at the Seventh IEEE International Conference on Data Mining (ICDM)*, pages 195–200, Omaha, Nebraska, October 2007.
- [34] Hung-Ching (Justin) Chen, Mark Goldberg, Malik Magdon-Ismael, and Al Wallace. Inferring agent dynamics from social communication network. In *Proc. Joint 9th Web Mining (WebKDD) and 1st Social Network Analysis (SNA-KDD) Workshop at KDD 2007*, San Jose, CA, August 2007.
- [35] Hung-Ching (Justin) Chen, Mark Goldberg, Malik Magdon-Ismael, and Al Wallace. Extracting agent based models from a social communication network. In *Proc. Conf. of Agent-based Modelers and Agent-based Modeling Platform Users (SwarmFest 2007)*, Chicago, IL, July 2007.
- [36] Yingjie Zhou, Mark Goldberg, Malik Magdon-Ismael, and Al Wallace. Strategies for cleaning organizational emails with an application to enron email dataset. In *Proc. 5th Conf. of N. Am. Assoc. for Comp. Soc. and Org. Science (NAACSOS 07)*, Emory, GA, June 2007.

- [37] Jeffery Baumes, Mark Goldberg, Mykola Hayvanovych, Stephen Kelley, Malik Magdon-Ismael Konstantin Mertsalov, and William Wallace. Sights: A software system for finding coalitions and leaders in a social network. In *Proc. 5th Conference on Intelligence and Security Informatics (ISI)*, Rutgers, NJ, May 2007.
- [38] Hung-Ching (Justin) Chen and Malik Magdon-Ismael. Learning martingale measures from high frequency financial data to help option pricing. In *5th Int. Conf. on Comp. Intelligence in Economics and Finance (CIEF 2006) (with JCIS 2006)*, Kaohsiung, Taiwan, October 2006.
- [39] Hung-Ching (Justin) Chen and Malik Magdon-Ismael. NNOPT: Neural networks for option pricing using multinomial trees. In *13th Int. Conf. on Neural Information Processing (ICONIP2006)*, Hong Kong, October 2006.
- [40] Matthew Francisco, Jeffery Baumes, Hung-Ching Chen, Mark Goldberg, Malik Magdon-Ismael, and Al Wallace. Using agent-based modeling to traverse frameworks in theories of the social. In *Int. Conf. on Complex Systems (ICCS06)*, Boston, MA, June 2006.
- [41] Jeffery Baumes, Hung-Ching Chen, Matthew Francisco, Mark Goldberg, Malik Magdon-Ismael, and Al Wallace. Social capital experiments. In *4th Conf. of N. Am. Assoc. for Comp. Soc. and Org. Science (NAACSOS 06)*, Notre-Dame, Indiana, June 2006.
- [42] Ali Civril, Malik Magdon-Ismael, and Eli Bocek-Rivele. SSDE: Fast graph drawing using sampled spectral distance embedding. In *Proc. 14th Int. Symp. on Graph Drawing (GD)*, Karlsruhe, Germany, Sept. 2006.
- [43] Jeffery Baumes, Mark K. Goldberg, Mykola Hayvanovych, Malik Magdon-Ismael, William Wallace, and Mohammed Zaki. Finding hidden groups in streaming communication data. In *Proc. IEEE International Conference on Intelligence and Security Informatics (ISI)*, volume 3975 of *Lecture Notes in Computer Science*, pages 201–212. Springer, 2006. **[Best Paper Award, top three]**.
- [44] Sibel Adali, Brandeis Hill, and Malik Magdon-Ismael. The impact of ranker quality on ranker aggregation algorithms: Information vs. robustness. In *ICDE Workshop on Challenges in Web Information Retrieval and Integration (WIRI)*, pages 10–19, Atlanta, Georgia, April 2006.
- [45] Ali Civril, Malik Magdon-Ismael, and Eli Bocek-Rivele. SDE: Graph drawing using spectral distance embedding. In *Proc. 13th Symp. on Graph Drawing (GD)*, volume 3843 of *Lecture Notes in Computer Science*, pages 512–513. Springer, January 2006.
- [46] Costas Busch and Malik Magdon-Ismael. Atomic routing games on maximum congestion. In *Proc. 2nd International Conference on Algorithmic Aspects in Information and Management (AAIM)*, pages 79–91, 2006.
- [47] Petros Drineas, Asif Javed, Malik Magdon-Ismael, Gopal Pandurangan, Reino Virrankoski, and Andreas Savvides. Distance matrix reconstruction from incomplete distance information for sensor network localization. In *Proc. 3rd Annual IEEE Conf. on Sensor and Ad Hoc Communications and Networks (SECON)*, volume 2, pages 536–544, New Haven, CT, September 2006. IEEE.
- [48] Hung-Ching (Justin) Chen and Malik Magdon-Ismael. Learning Martingale Measures to price options. In *NIPS 2005 Workshop on Machine Learning in Finance*, Vancouver/Whistler, Canada, December 2005.
- [49] Sibel Adali, Tina Liu, and Malik Magdon-Ismael. Optimal link bombs are uncoordinated. In *First Int. Wkshp. on Adversarial Information Retrieval on the Web (AIRWeb) at the 14th International WWW Conf.*, Chiba, Japan, 10-14 May 2005. (electronic proceedings).
- [50] Jeffery Baumes, Hung-Ching Chen, Matthew Francisco, Mark Goldberg, Malik Magdon-Ismael, and William Wallace. Dynamics of bridging and bonding in social groups, a multi-agent model. In *3rd Conf. of the N. Amer. Assoc. for Comp. Social and Organizational Science (NAACSOS)*, IN, June 2005. (electronic proceedings).

- [51] Jeffery Baumes, Mark Goldberg, and Malik Magdon-Ismael. Efficient identification of overlapping communities. In *IEEE International Conference on Intelligence and Security Informatics (ISI)*, pages 27–36, Atlanta, Georgia, May, 19-20 2005.
- [52] Costas Busch, Malik Magdon-Ismael, and Jing Xi. Oblivious routing on geometric networks. In *17th ACM Symp. on Parallelism in Alg. and Arch. (SPAA)*, pages 316–324, Las Vegas, Nevada, July 17-20 2005.
- [53] Costas Busch, Shailesh Kelkar, and Malik Magdon-Ismael. Efficient bufferless routing on leveled networks. In *Proc of EURO-PAR 2005*, pages 931–940, Lisboa, Portugal, August 2005.
- [54] Jonathan Purnell, Malik Magdon-Ismael, and Heidi Newberg. A probabilistic approach to finding geometric objects in spatial datasets of the Milky Way. In *Proc. 15th Int. Symp. on Methodologies for Intelligent Systems (ISMIS 2005)*, pages 485–493, Saratoga Springs, NY, May 2005.
- [55] Mark Goldberg, David Hollinger, and Malik Magdon-Ismael. Experimental evaluation of the greedy and random algorithms for finding independent sets in random graphs. In *Proc. 4th Int. Wkshp. on Efficient and Experimental Algorithms (WEA)*, pages 513–523, Santorini, Greece, May 2005.
- [56] Costas Busch, Malik Magdon-Ismael, and Jing Xi. Optimal oblivious path selection on the mesh. In *Proceedings of the International Parallel and Distributed Processing Symposium (IPDPS 2005)*, pages 82–91, Denver, Colorado, USA, April 2005.
- [57] Jeffrey Baumes, Mark Goldberg, Mukkai Krishnamoorthy, Malik Magdon-Ismael, and Nathan Preston. Finding communities by clustering a graph into overlapping subgraphs. In *Proc. Int. Conf. on Appl. Comp. (IADIS)*, pages 97–104, Portugal, February 2005.
- [58] Seyit Ahmet Camtepe, Mark Goldberg, Malik Magdon-Ismael, and Mukkai Krishnamoorthy. Detecting conversing groups of chatters: A model, algorithms and tests. In *Proc. Int. Conf. on Appl. Comp. (IADIS)*, pages 89–96, Portugal, February 2005.
- [59] Costas Busch, Malik Magdon-Ismael, Fikret Sivrikaya, and Bulent Yener. Contention-free mac protocols for wireless sensor networks. In *Proceedings of the 18th Annual Conference on Distributed Computing (DISC 2004)*, pages 245–259, Amsterdam, the Netherlands, October 2004.
- [60] Costas Busch, Malik Magdon-Ismael, and Marios Mavronicolas. Universal bufferless routing. In G. Persiano and R. Solis-Oba, editors, *Proc. 2nd Workshop on Approximation and On-line Algorithms (WAOA), with ESA 2004 in conjunction with ALGO 2004*, volume 3351 of *Lecture Notes in Computer Science*, pages 239–252, Bergen, Norway, September 2004. Springer-Verlag.
- [61] Costas Busch, Malik Magdon-Ismael, Marios Mavronicolas, and Roger Wattenhofer. Near-optimal hot potato routing on trees. In *Proceedings of Euro-Par 2004*, pages 820–827, Pisa, Italy, August 2004.
- [62] Costas Busch, Malik Magdon-Ismael, Marios Mavronicolas, and Paul Spirakis. Direct routing: Algorithms and Complexity. In S. Albers and T. Radzik, editors, *Proc. 12th European Symp. on Algorithms (ESA)*, volume 3221 of *Lecture Notes in Computer Science*, pages 134–145, Bergen, Norway, September 2004. Springer-Verlag.
- [63] Hung-Ching Chen, Mark K. Goldberg, and Malik Magdon-Ismael. Identifying multi-ID users in open forums. In H. Chen, R. Moore, D. Zeng, and J. Leavitt, editors, *2nd Symp. on Intelligence and Security Informatics (ISI)*, pages 176–186, Tucson, AZ, June 2004. Springer.
- [64] Jeffery Baumes, Mark K. Goldberg, Malik Magdon-Ismael, and William Wallace. Discovering hidden groups in communication networks. In H. Chen, R. Moore, D. Zeng, and J. Leavitt, editors, *2nd Symp. on Intelligence and Security Informatics (ISI)*, pages 378–389, Tucson, AZ, June 2004.
- [65] Malik Magdon-Ismael, Costas Busch, and Mukkai Krishnamoorthy. Cake-cutting is not a piece of cake. In *Proceedings of the Symposium on the Theoretical Aspects of Computer Science (STACS)*, pages 596–607, Berlin, Feb 2003. Springer.

- [66] Malik Magdon-Ismael and Joseph Sill. Using a linear fit to determine monotonicity directions. In *Proc. of Conf. on Learning Theory (COLT)*, pages 477–491, August 25–27 2003.
- [67] Malik Magdon-Ismael, Mark Goldberg, William Wallace, and David Siebecker. Locating hidden groups in communication networks using Hidden Markov Models. In *Int. Conf. on Intelligence and Security Informatics (ISI)*, pages 126–137, Tucson, AZ, June 2003.
- [68] Mark Goldberg, Paul Horn, Malik Magdon-Ismael, Jessie Riposo, David Siebecker, William Wallace, and Bulent Yener. Statistical modeling of social groups on communication networks. In *1st Conf. of the N. Amer. Assoc. for Comp. Social and Organizational Science (NAACSOS)*, PA, June 2003. (electronic proceedings).
- [69] Malik Magdon-Ismael, Amir F. Atiya, Amrit Pratap, and Yaser S. Abu-Mostafa. The maximum draw-down of the Brownian motion. In *Proc. Int. Conf. on Computational Intelligence for Financial Eng. (CIFEr)*, pages 243–248, Hong Kong, March 2003. IEEE.
- [70] Malik Magdon-Ismael. Pricing the American put using a new class of tight lower bounds. In *Proceedings of the International Conference on Computational Intelligence for Financial Engineering (CIFER 03)*, pages 93–100, Hong Kong, March 2003. IEEE.
- [71] Yu Shao, Malik Magdon-Ismael, Daniel Freedman, Srinivas Akella, Mohammed Zaki, and Chris Bystroff. Compressing protein conformational space. *RECOMB02: Sixth International Conference on Research in Computational Molecular Biology*, 2002. (poster).
- [72] Malik Magdon-Ismael, Justin (Hung-Ching) Chen, and Yaser S. Abu-Mostafa. The multilevel classification problem and a monotonicity hint. In *3rd Int. Conf. on Intelligent Data Eng. and Learning (IDEAL)*, pages 410–415, Manchester, UK, August 2002.
- [73] Eric Breimer, Mark K. Goldberg, Brian T. Kolstad, and Malik Magdon-Ismael. Experimental evaluation of the height of a random set of points in a d-dimensional cube. *3rd Workshop on Algorithm Engineering and Experiments (ALENEX)*, pages 161–171, January 2001.
- [74] Mark K. Goldberg, Darren T. Lim, and Malik Magdon-Ismael. A learning algorithm for string assembly. *BIOKDD01: Workshop on Data Mining in Bioinformatics (with SIGKDD01 Conference)*, pages 31–37, August 2001.
- [75] Malik Magdon-Ismael, Amir Atiya, and Yaser Abu-Mostafa. Pricing the quality option of the bond futures contract. In *Proceedings of the 16th IMACS World Congress*, Lausanne, Switzerland, August 2000. (electronic proceedings).
- [76] Malik Magdon-Ismael and Amir Atiya. Volatility estimation using high, low and close data - a maximum likelihood approach. *Computational Finance (CF2000), Proceedings*, June 2000.
- [77] Malik Magdon-Ismael and Amir F. Atiya. A Bayesian approach to estimating mutual fund returns. In Yaser S. Abu-Mostafa, Blake LeBaron, Andrew W. Lo, and Andreas S. Weigend, editors, *Computational Finance (CF99)*, pages 189–200. MIT Press, 1999.
- [78] Malik Magdon-Ismael and Amir F. Atiya. A control theory formulation for random variate generation. In *Neural Networks for Signal Processing IX, Proceedings of the 1999 IEEE Workshop*, volume 9, pages 132–138, 1999.
- [79] Malik Magdon-Ismael and Amir F. Atiya. Neural networks for density estimation. In *Advances in Neural Information Processing Systems (NIPS)*, volume 11, pages 522–528, 1998.
- [80] Malik Magdon-Ismael, Alexander Nicholson, and Yaser S. Abu-Mostafa. Estimation of model limitation in financial markets. In *Int. Symp. on Intelligent Data Eng. and Learning (IDEAL)*, pages 19–26, 1998.
- [81] Malik Magdon-Ismael and Amir F. Atiya. Neural networks for density estimation in financial markets. In *Int. Symp. on Intelligent Data Eng. and Learning (IDEAL)*, pages 171–178, 1998.

- [82] Zehra Cataltepe and Malik Magdon-Ismael. Incorporating test inputs into learning. In *Proc. Advances in Neural Information Processing Systems (NIPS)*, pages 437–443, 1997.
- [83] Malik Magdon-Ismael and Yaser S. Abu-Mostafa. Systematic underprediction of volatility in maximum likelihood methods. In A Weigend, Y. Abu-Mostafa, and A-P. N. Refenes, editors, *Decision Technologies for Financial Engineering (Proc. 4th Int. Conf. on Neural Networks in the Capital Markets (NNCM))*, pages 125–137. World Scientific, 1996.

Book Chapters

- [1] Nate Cole, Travis Desell, Daniel Lombraaa Gonzlez, Francisco Fernndez de Vega, Malik Magdon-Ismael, Heidi Newberg, Boleslaw Szymanski, and Carlos Varela. *Parallel and Distributed Computational Intelligence.*, volume 6 of *Studies in Computational Intelligence*, chapter Evolutionary Algorithms on Volunteer Computing Platforms: The MilkyWay@Home Project, pages 63–90. Springer-Verlag, Berlin, 2010.
- [2] Jeffery Baumes, Mark K. Goldberg, Malik Magdon-Ismael, and William Wallace. Discovering hidden groups in communication networks. In Cecilia S. Gal, Paul B. Kantor, and Bracha Shapira, editors, *Security Informatics and Terrorism: Patrolling the Web*, NATO Science for Peace and Security Series, Sub-series D: Information and Communication Security, pages 82–108. NATO, 2008. Invited book chapter.
- [3] Jeffery Baumes, Mark K. Goldberg, Malik Magdon-Ismael, and William Wallace. *Identification of Hidden Groups in Communications*, volume 2 (National Security) of *Handbooks in Information Systems*, chapter 9, pages 209–242. Elsevier, 2007. Invited book chapter.
- [4] Malik Magdon-Ismael, Alexander Nicholson, and Yaser S. Abu-Mostafa. Learning in the presence of noise. In Simon Haykin and Bart Kosko, editors, *Intelligent Signal Processing*. IEEE Press, 2001.