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## ***Publications***

### 1. Edited scientific volumes and conference proceedings

- 1.1. J.Rissanen, J. Leppä-Aho, T.Roos, and P. Myllymäki (eds). Proceedings of the Ninth Workshop on Information Theoretic Methods in Science and Engineering (WITMSE-2016). University of Helsinki, Department of Computer Science (Series of Publications B; vol. B-2016-2)
- 1.2. J. Rissanen, P. Harremoës, S. Forchhammer, P. Myllymäki, and T. Roos (eds.), Proceedings of the Eight Workshop on Information Theoretic Methods in Science and Engineering (WITMSE-2015). Copenhagen, August 2015.
- 1.3. J. Rissanen, P. Myllymäki, T. Roos, and N. Santhanam (eds.), Proceedings of the Seventh Workshop on Information Theoretic Methods in Science and Engineering (WITMSE-2014). Honolulu, July 2014.
- 1.4. K. Yamanishi, J. Rissanen, I. Tabus, P. Myllymäki, and T. Roos (eds.), Proceedings of the Sixth Workshop on Information Theoretic Methods in Science and Engineering (WITMSE-2013). Tokyo, August 2013.
- 1.5. S. de Rooij, W. Kotłowski, J. Rissanen, P. Myllymäki, T. Roos, and K. Yamanishi (eds.), Proceedings of the Fifth Workshop on Information Theoretic Methods in Science and Engineering (WITMSE-2012). Amsterdam, August 2012.
- 1.6. J. Rissanen, P. Myllymäki, T. Roos, I. Tabus and K. Yamanishi (eds.), Proceedings of the Fourth Workshop on Information Theoretic Methods in Science and Engineering (WITMSE-2011). University of Helsinki, Department of Computer Science, Report C-2011-45.
- 1.7. P. Myllymäki, T. Roos and T. Jaakkola (eds.), Proceedings of the Fifth European Workshop on Probabilistic Graphical Models (PGM'2010), Helsinki, September 2010. HIIT Publications 2010-2.
- 1.8. K. Yamanishi, I. Kontoyiannis, E. Liski, P. Myllymäki, J. Rissanen and I. Tabus (eds.), Proceedings of the Third Workshop on Information Theoretic Methods in Science and Engineering (WITMSE-2010). TICSP series 55, Tampere International Center for Signal Processing, 2010.
- 1.9. J. Heikkonen, I. Kontoyiannis, E. Liski, P. Myllymäki, J. Rissanen and I. Tabus (eds.), Proceedings of the Second Workshop on Information Theoretic Methods in Science and Engineering (WITMSE-2009). TICSP series 49, Tampere International Center for Signal Processing, 2009.

- 1.10. D. McAllester and P. Myllymäki (eds.), Proceedings of the 24th Conference on Uncertainty in Artificial Intelligence (UAI 2008), July 2008, Helsinki, Finland. AUAI Press, 2008.
- 1.11. J. Heikkonen, I. Kontogiannis, E. Liski, P. Myllymäki, J. Rissanen and I. Tabus (eds.), Proceedings of the First Workshop on Information Theoretic Methods in Science and Engineering (WITMSE-2008). TICSP Series #43, Tampere International Center for Signal Processing, 2008.
- 1.12. P. Grünwald, P. Myllymäki, I. Tabus, M. Weinberger and B. Yu (eds.), *Festschrift in Honour of Jorma Rissanen*. TICSP Series #38, Tampere International Center for Signal Processing, 2008. Presented at the 2008 IEEE Information Theory Workshop.

## 2. Book chapters (edited and refereed)

- 2.1. P. Myllymäki, T. Roos, T. Silander, P. Kontkanen and H. Tirri, Factorized NML Models. Chapter 11 in *Festschrift in Honour of Jorma Rissanen*, edited by P. Grünwald, P. Myllymäki, I. Tabus, M. Weinberger and B. Yu. TICSP Series #38, 2008.
- 2.2. P. Kontkanen, P. Myllymäki, W. Buntine, J. Rissanen, H. Tirri, An MDL Framework for Data Clustering. In *Advances in Minimum Description Length: Theory and Applications*, edited by P. Grünwald, I.J. Myung and M. Pitt. The MIT Press, 2005.
- 2.3. P. Kontkanen, P. Myllymäki, T. Roos, H. Tirri, K. Valtonen, H. Wettig, Probabilistic Methods for Location Estimation in Wireless Networks. Chapter 11 in *Emerging Location Aware Broadband Wireless Adhoc Networks*, edited by R. Ganesh, S. Kota, K. Pahlavan and R. Agustí. Kluwer Academic Publishers, 2004
- 2.4. P. Kontkanen, P. Myllymäki, T. Silander, and H. Tirri, On the Accuracy of Stochastic Complexity Approximations. Chapter 9 in *Causal Models and Intelligent Data Management*, edited by A. Gammerman. Springer-Verlag, 1999.
- 2.5. P. Myllymäki and H. Tirri, Constructing Computationally Efficient Bayesian Models via Unsupervised Clustering. Pp. 237-248 in *Probabilistic Reasoning and Bayesian Belief Networks*, edited by A. Gammerman. Alfred Waller Publishers, Suffolk 1995.
- 2.6. P. Myllymäki and H. Tirri, Massively Parallel Case-Based Reasoning with Probabilistic Similarity Metrics. Pp. 144-154 in *Topics in Case-Based Reasoning*, edited by S. Wess, K.-D. Althoff and M. Richter. Lecture Notes in Artificial Intelligence, Volume 837. Springer Verlag, 1994.

## 3. Articles in refereed international journals

- 3.1. B. Malone, K. Kangas, M. Jarvisalo, M. Koivisto, and P. Myllymäki, Empirical Hardness of Finding Optimal Bayesian Network Structures: Algorithm Selection and Runtime Prediction. *Machine Learning* 107 (2018), 1, 247-283.

- 3.2. N.Jahnsson, B.Malone, and P.Myllymäki, Duplicate Detection for Bayesian Network Structure Learning. *New Generation Computing* 35 (2017), 1, 47-67.
- 3.3. R. Eggeling, T. Roos, P. Myllymäki, P. And I. Grosse, Inferring intra-motif dependencies of DNA binding sites from ChIP-seq data. *BMC Bioinformatics* 16, 2015.
- 3.4. T. Ruotsalo, G., Jacucci, P., Myllymäki, and S. Kaski, Interactive intent modeling: information discovery beyond search. *Communications of the ACM* 58 (2015), 86-92.
- 3.5. E.Khoramshahi, E.Honkavaara, J. Hyypä, P.Myllymäki, Passive Localization of a Robot Using Multiple-View Geometry. *International Journal of Robotics Applications and Technologies* 2 (2014), 20-36.
- 3.6. T. Roos, P. Myllymäki, and T. Jaakkola, Editorial: Special issue on the Fifth European Workshop on Probabilistic Graphical Models. *International Journal of Approximate Reasoning* 59 (2012) 9, 1303-1304.
- 3.7. A. Carvalho, T. Roos, A. Oliveira, and P. Myllymäki. Discriminative learning of Bayesian networks via factorized conditional log-likelihood. *Journal of Machine Learning Research* 12 (2011), 2181-2210.
- 3.8. J. Perkiö, A. Tuominen, T. Vähäkangas and P. Myllymäki, Image Similarity: From Syntax to Weak Semantics. *Multimedia Tools and Applications*, DOI: 10.1007/s11042-010-0562-7, July 14, 2010.
- 3.9. T. Silander, T. Roos, and P. Myllymäki, Learning Locally Minimax Optimal Bayesian Networks. *International Journal of Approximate Reasoning* 51 (2010) 5 (June), 544-557.
- 3.10. J. Rissanen, T. Roos, and P. Myllymäki, Model Selection by Sequentially Normalized Least Squares. *Journal of Multivariate Analysis* 101 (2010) 4 (April), 839-849.
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- 3.16. T.Roos, H.Wettig, P.Grünwald, P.Myllymäki, H.Tirri, On Discriminative Bayesian Network Classifiers and Logistic Regression. *Machine Learning* 59 (2005):3, pp. 267-296.
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- 3.19. T.Roos, P.Myllymäki, H.Tirri, P.Misikangas, J.Sievänen, A Probabilistic Approach to WLAN User Location Estimation. *International Journal of Wireless Information Networks*, Vol. 9 (2002), No. 3, 155-164.
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- 3.23. P. Floréen, P. Myllymäki, P. Orponen, and H. Tirri, Compiling object declarations into connectionist networks. *AI Communications* 3 (1990) 4 (December), 172-183.

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- 4.1. B.Malone, K.Kangas, M.Järvisalo, M.Koivisto, and P.Myllymäki, AS-ASL: Algorithm Selection with Auto-sklearn. *Proceedings of Machine Learning Research* 79 (2017), 19-22.
- 4.2. B. Malone, M. Järvisalo, and P. Myllymäki, Impact of Learning Strategies on the Quality of Bayesian Networks: An Empirical Evaluation. *Proceedings of the Thirty-First Conference on Uncertainty in Artificial Intelligence (UAI-2015)*, July 12-16, 2015, Amsterdam, Netherlands
- 4.3. T. Ruotsalo, J. Peltonen, M. Eugster, D. lowacka, A. Reijonen, G. Jacucci, P. Myllymäki, and S. Kaski, SciNet: Interactive Intent Modeling for Information Discovery. *Proceedings of the 38th International ACM SIGIR Conference on Research and Development in Information Retrieval*, Santiago, Chile, August 9-13, 2015.
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- 4.10. A. Oulasvirta, A. Pihlajamaa, J. Perkiö, T. Vähäkangas, D. Ray, N. Vainio, P. Myllymäki, T. Hasu, Long-term Effects of Ubiquitous Surveillance at Home. In *Proceedings of the 14th International Conference on Ubiquitous Computing (Ubicomp)*, September, 2012.
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- 4.20. A. Pernestål, H. Wettig, T. Silander, M. Nyberg and P. Myllymäki, A Bayesian Approach to Learning in Fault Isolation. Pp. 143-150 in Proceedings of The 19th International Workshop on Principles of Diagnosis (DX-08), edited by A. Grastien, W. Mayer, and M. Stumptner. September 22-24, 2008, Blue Mountains, NSW, Australia.
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- 4.29. T. Mononen and P. Myllymäki, Fast NML Computation for Naive Bayes Models. Pp. 151-160 in the *Proceedings of the 10th International Conference on Discovery Science*, edited by V. Corruble, M. Takeda and E. Suzuki. Lecture Notes in Artificial Intelligence 4755, Springer 2007.
- 4.30. T. Silander and P. Kontkanen and P. Myllymäki, On Sensitivity of the MAP Bayesian Network Structure to the Equivalent Sample Size Parameter. Pp. 360-367 in the *Proceedings of the The 23rd Conference on Uncertainty in Artificial Intelligence (UAI-2007)*, edited by R. Parr and L. van der Gaag. AUAI Press, 2007.
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