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Education	Massachusetts Institute of Technology	Cambridge, MA
	Ph.D., Dept. of Electrical Engineering & Computer Science, Laboratory for Information & Decision Systems, June 2005. Thesis: Inference in Sensor Networks: Graphical Models and Particle Methods	
	Massachusetts Institute of Technology	Cambridge, MA
	M.S., Dept. of Electrical Engineering & Computer Science, August 2000. Thesis: Maximally Informative Subspaces: Nonparametric Estimation for Dynamical Systems	
	California Institute of Technology	Pasadena, CA
	B.S. with Honors, Electrical Engineering and Mathematics, June 1998.	
Awards	Outstanding Student Paper Award	NIPS Conference, 2004
	Best Student Paper Award	IPSN Conference, 2004
	Hinrichs Student Leadership Award	Caltech, 1998
Research Experience	University of California, Irvine	Irvine, CA
	Assistant Professor	Nov. 2007-present
	Toyota Technological Institute	Chicago, IL
	Research Assistant Professor	2007
	UC Irvine, Dept. of Computer Science	Irvine, CA
	Postdoctoral Researcher, Smyth DataLab	2005-2006
	MIT, Dept. of Electrical Engineering & Computer Science	Cambridge, MA
Advisors: Alan Willsky and John Fisher	2000-2005	
AlphaTech	Burlington, MA	
Supervisor: Joel Douglas	Summer 2000	
MIT, Dept. of Electrical Engineering & Computer Science	Cambridge, MA	
Advisors: Alan Willsky and John Fisher	1998-2000	

Teaching Experience	University of California at Irvine	Irvine, CA
	Instructor, Adv. Methods for Graphical Models (CS295)	Winter 2008
	Instructor, Probabilistic Learning (CS274A)	Spring 2008
	Instructor, Research Prob. in Machine Learning (CS295)	Fall 2008
	Duke University, Talent Identification Program (TIP)	Durham, NC
	Instructor, Algorithms	Summer 2001
	Massachusetts Institute of Technology	Cambridge, MA
	Teaching Assistant, Digital hardware laboratory (6.111)	Spring 1999
	Massachusetts Institute of Technology	Cambridge, MA
	Teaching Assistant, Microprocessor systems design (6.115)	Fall 1998
California Institute of Technology	Pasadena, CA	
Teaching Assistant, Embedded systems hardware/software	1996-1998	
Duke University, Talent Identification Program (TIP)	Durham, NC	
Teaching Assistant, Discrete math and Number theory	Summers 1994-1996	

Theses

Inference in Sensor Networks: Graphical Models and Particle Methods.
 Doctoral Thesis, MIT, 2005.

Maximally Informative Subspaces: Nonparametric Estimation for Dynamical Systems. Master's Thesis, MIT, 2000.

Journal Publications

- [J6] Ihler, Hutchins, Smyth; *Learning to detect events with Markov-modulated Poisson Processes.* ACM Transactions on Knowledge Discovery in Data, Dec. 2007.
- [J5] Ihler, Kirshner, Ghil, Robertson, Smyth; *Graphical Models for Statistical Inference and Data Assimilation.* Physica D, June 2007
- [J4] Cetin, Chen, Fisher, Ihler, Moses, Willsky; *Distributed Fusion in Sensor Networks: A Graphical Models Perspective.* IEEE Signal Processing Magazine, July 2006.
- [J3] Ihler, Fisher, Willsky; *Loopy Belief Propagation: Convergence and Effects of Message Errors.* Journal of Machine Learning Research, May 2005.
- [J2] Ihler, Fisher, Moses, Willsky; *Nonparametric Belief Propagation for Self-Localization of Sensor Networks.* Journal of Selected Areas in Communications, April 2005.
- [J1] Ihler, Fisher, Willsky, *Nonparametric Hypothesis Tests for Statistical Dependency.* IEEE Transactions on Signal Processing, August 2004.

Conference Publications

- [C19] Hutchins, Ihler, Smyth; *Probabilistic Analysis of a Large Scale Urban Traffic Sensor Data Set*. In Knowledge Discovery in Sensor Data Workshop, Aug. 2008.
- [C18] Porteous, Newman, Ihler, Asuncion, Smyth, Welling. Fast Collapsed Gibbs Sampling for Latent Dirichlet Allocation. In Knowledge Discovery & Data Mining (KDD), Aug. 2008
- [C17] Acar, Ihler, Mettu, Sumer; *Adaptive Inference for General Graphical Models*. In Uncertainty in Artificial Intelligence, July 2008.
- [C16] Acar, Ihler, Mettu, Sumer; *Adaptive Bayesian Inference*. In Neural Information Processing Systems, Dec. 2007.
- [C15] Hutchins, Ihler, Smyth; *Modeling Count Data from Multiple Sensors: A Building Occupancy Model*. In Computational Advances in Multi-sensor Adaptive Processing, Dec. 2007.
- [C14] Ihler; *Accuracy Bounds for Belief Propagation*. In Uncertainty in Artificial Intelligence, July 2007.
- [C13] Ihler, Smyth; *Learning Time-Intensity Profiles of Human Activity using Non-Parametric Bayesian Models*. In Neural Information Processing Systems, Dec. 2006.
- [C12] Porteous, Ihler, Smyth, Welling; *Gibbs Sampling for (Coupled) Infinite Mixture Models in the Stick Breaking Representation*. In Uncertainty in Artificial Intelligence, July 2006.
- [C11] Ihler, Hutchins, Smyth; *Event Detection with Time-Varying Poisson Processes*. In Knowledge Discovery and Data Mining (KDD), Aug. 2006.
- [C10] Ihler, Fisher, Willsky; *Particle Filtering Under Communications Constraints*. In IEEE Workshop on Statistical Signal Processing (SSP), July 2005.
- [C9] Siracusa, Tieu, Ihler, Fisher, Willsky, *Estimating Dependency and Significance for High-Dimensional Data*. In Int'l Conf. on Acoustics, Speech, and Signal Processing, May 2005.
- [C8] Ihler, Fisher, Willsky; *Message Errors in Belief Propagation*. In Neural Information Processing Systems, Dec. 2004. (*Outstanding Student Paper Award*)
- [C7] Ihler, Fisher, Moses, Willsky; *Nonparametric Belief Propagation for Sensor Self-Calibration*. In Int'l Conference on Acoustics, Speech, and Signal Processing, May 2004.
- [C6] Ihler, Fisher, Moses, Willsky; *Nonparametric Belief Propagation for Self-Calibration in Sensor Networks*. In Information Processing in Sensor Networks, April 2004. (*Best Student Paper Award*)
- [C5] Ihler, Sudderth, Freeman, Willsky; *Efficient Multiscale Sampling from Products of Gaussian Mixtures*. In Neural Information Processing Systems, Dec. 2003.

- [C4] Sudderth, Ihler, Freeman, Willsky; *Nonparametric Belief Propagation*. In Computer Vision and Pattern Recognition, June 2003.
- [C3] Ihler, Fisher, Willsky; *Hypothesis Testing over Factorizations for Data Association*. In Information Processing in Sensor Networks, April 2003.
- [C2] Ihler, Fisher, Willsky, *Nonparametric Estimators for Online Signature Authentication*. In Int'l Conf. on Acoustics, Speech, and Signal Processing, May 2001.
- [C1] Fisher, Ihler, Viola, *Learning Informative Statistics: A Nonparametric Approach*. In Neural Information Processing Systems, Dec. 1999.

Book Chapters

- [B1] Cetin, Chen, Fisher, Ihler, Kreidl, Moses, Wainwright, Williams, Willsky; "Graphical Models and Fusion in Sensor Networks". *Wireless Sensor Networks: Signal Processing and Communications*, Wiley, Dec. 2007.

Other professional activities

Journal Reviewing: Machine Learning, Journal of Machine Learning Research, IEEE Comm. Mag., IEEE Trans. Sig. Proc., IEEE Trans. Info. Theory, IEEE Trans. Img. Proc., IEEE Trans. Veh. Tech., IEEE Trans. Intel. Trans. Sys.

Conference Program Committees: UAI (2007-2008), ICML (2008), CVPR (2008), ECCV (2008), ISIT (2008)

Other Reviewing: NIPS (2003-2008)

References

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Dr. John W. Fisher III
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