

Dr. Anders Høst-Madsen, Professor

Education

Ph.D. (1993) Mathematics, Technical University of Denmark.

M.S. (1990) Engineering, Technical University of Denmark.

Academic Experience

Aug 09 -	Professor, Department of Electrical Engineering, University of Hawai'i
Jul 05 – Jul 09	Associate Professor, Department of Electrical Engineering, University of Hawai'i
Jan 01 – Jun 05	Assistant Professor, Department of Electrical Engineering, University of Hawai'i
July 98 – Dec. 00	Assistant professor, Department of Electrical and Computer Engineering, University of Calgary, Canada
Mar 96 - June 98	Assistant professor, K-JIST, Korea; a newly founded governmental graduate school.

Non-Academic Experience

Sep 07 – Apr 08	Chief Technology Officer and co-founder, Kai Sensors, Inc. (leave of absence from UH)
Nov 04 – Aug 07	Chief Technology Officer and co-founder, Senscorp, Inc. (merged with Kai Sensors).
Apr 93 - Feb 96	Research Engineer at Dantec, Denmark.
83-86	Computer Programmer at Holte Gymnasium
82-90	Computer expert at Søllerød Kommune (county)

Professional Affiliations: Fellow, IEEE.

Honors and Awards: JWCN best paper award (2006); Fellow IEEE (2013)

Institutional and Professional Service:

- Associate Editor (Detection & Estimation), *IEEE Transactions on Information Theory*, 2004-2007.
- Editor (Multiuser Communications), *IEEE Transaction on Communications*, 2003-2007.
- Local arrangements chair, Wireless Personal Multimedia Conference (WPMC), 2002, Honolulu, Hawaii.
- Local arrangements chair, IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), 2007, Honolulu, Hawaii.
- Member, Technical Program Committee, IEEE International Symposium on Information Theory (ISIT'12), 2012, Boston, Massachusetts.
- **General co-chair, ISITA 2012, Honolulu, Hawaii.**
- **General co-chair, IEEE International Symposium on Information Theory (ISIT'14), 2014, Honolulu, Hawaii.**
- Member, Technical Program Committee, IEEE Globeom 2014, Austin, TX.

Principle Publications (last five years)

Journal papers

1. Wansuree Massagram, Victor M. Lubecke, Anders Høst-Madsen, and Olga Boric-Lubecke: "Assessment of Heart Rate Variability and Respiratory Sinus Arrhythmia via Doppler Radar," *IEEE Transactions on Microwave Theory and Techniques*, Vol. 57, no. 10, Part 2, pp. 2542 – 2549, Oct. 2009.
2. Momin Uppal, Zigui Yang, Anders Høst-Madsen, Zixiang Xiong: "Cooperation in the Low Power Regime for the MAC Using Multiplexed Rateless Codes," *IEEE Trans. Signal Processing*, Vol. 58, no. 9, pp. 4720-4734, Sept. 2010.

3. Antolín Moral, Josep Vidal, Jorge Pérez, Adrian Agustín, Ninoslav Marina, and Anders Høst-Madsen: "Techno-economic evaluation of cooperative relaying transmission techniques in OFDM cellular networks," *EURASIP Journal on Advances in Signal Processing*, Volume 2011 (2011), Article ID 507035, 23 pages.
4. Anders Høst-Madsen, Momin Uppal, Zixiang Xiong: "On Outage Capacity in the Low Power Regime," *IEEE Trans. Information theory*, Vol. 58, No. 2, pp. 888-896, Feb. 2012.
5. Yabo Li, Ibo Ngehani, Xiang-Gen Xia, and Anders Høst-Madsen: "On Performance of Vector OFDM with Linear Receivers," *IEEE Trans. Signal Processing*, Vol. 60, No.2, pp. 5268 – 5280, Oct. 2012
6. Minqi Shen and Anders Høst-Madsen: "The Wideband Slope of Interference Channels: The Large Bandwidth Case," *IEEE Trans. Information Theory*, Vol. 59, No. 5, pp. 2694-2712, May 2013.
7. Anders Høst-Madsen: "Minimum Energy per Bit in Broadcast and Interference Channels with Correlated Information," *IEEE Trans. Information Theory*, Vol. 59, No. 6, pp. 3796-3810, June 2013.
8. Nan Jiang, Yang Yang, Anders Høst-Madsen, and Zixiang Xiong: "On the Minimum Energy of Sending Correlated Sources over the Gaussian MAC," *IEEE Trans. Information Theory*, Vol. 60, No. 10, pp. 6254 - 6275, Oct. 2014.

Conference papers

9. Nan Jiang, Yang Yang, Anders Høst-Madsen, and Zixiang Xiong: "Energy Efficient Hybrid Transmission of Correlated Sources Over the MAC," presented at 49th Annual Allerton Conference, Urbana-Champaign, Illinois, 2011.
10. Minqi Shen and Anders Høst-Madsen: "Wideband Slope of Interference Channel: Finite Bandwidth Case," presented at 49th Annual Allerton Conference, Urbana-Champaign, Illinois, 2011.
11. Anders Høst-Madsen, Nan Jiang, Yang Yang, and Zixiang Xiong: "Reliable versus Unreliable Transmission for Energy Efficient Transmission in Relay Networks," presented at ISIT'12, Boston, Massachusetts, July 2012.
12. Yabo Li, Ibo Ngehani, Xiang-Gen Xia, and Anders Høst-Madsen: "Performance Analysis of Vector OFDM with MMSE and ZF Receivers," presented at ICC'12, Beijing, China, August 2012.
13. Talha Ahmed Khan, Momin Uppal, Anders Høst-Madsen, and Zixiang Xiong: "Rateless Coded Hybrid Amplify/Decode-Forward Cooperation for Wireless Multicast," presented at ISIT'12, Boston, Massachusetts, July 2012.
14. Minqi Shen, Anders Høst-Madsen, and Yabo Li: "Energy Efficiency in Large Interference Networks," presented at ISITA'12, Honolulu, Hawaii, October 2012.
15. Nan Jiang, Yang Yang, Anders Høst-Madsen, and Zixiang Xiong: "Sending Two Gaussians over the Gaussian MAC with Bandwidth Expansion," presented at ISITA'12, Honolulu, HI, October 2012.
16. Nan Jiang, Yang Yang, Anders Høst-Madsen, and Zixiang Xiong: "On the Minimum Energy of Sending Gaussian Multiterminal Sources over the Gaussian MAC," presented at ISIT'13, Istanbul, Turkey, June 2013.
17. Jeremy Young, Anders Høst-Madsen, and Eva-Marie Nosal: "Separation of impulsive sources with application to sperm whale vocalizations," presented at IEEE DSP'13, Napa, CA.
18. Brendan Rideout, Eva-Marie Nosal, and Anders Høst-Madsen: "On blind channel estimation for passive acoustic monitoring of marine mammals," submitted to DCL 2013, St. Andrews, Scotland.
19. Anders Høst-Madsen, Elyas Sabeti, and Chad Walton: "Information Theory for Atypical Sequences," presented at ITW'13, Seville, Spain sept 9-13, 2013.