

# Yihong Wu

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## Education

- Sep 2006 — present **Ph.D.**, *Dept. of Electrical Engineering, Princeton University*, Princeton, NJ.  
Research advisor: Prof. Sergio Verdú
- Sep 2002 — Jul 2006 **B.E.**, *Dept. of Electronic Engineering, Tsinghua University*, Beijing, P. R. China.  
GPA: overall 93.0/100, major 94.6/100. Ranking: overall 3/160, major 2/160.  
Thesis advisor: Prof. Zhisheng Niu

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## Experience

- Feb 2008 — Jan 2009 **Assistant Instructor**, *Dept. of Electrical Engineering, Princeton University*, Princeton, NJ.  
ELE525: Random Processes in Information Systems, Fall 2008. Instructor: Prof. Sergio Verdú.
- Feb 2008 — Jun 2008 **Assistant Instructor**, *Dept. of Electrical Engineering, Princeton University*, Princeton, NJ.  
ELE486: Digital Communications and Networks, Spring 2008. Instructor: Prof. Sergio Verdú.
- Sep 2007 — Feb 2008 **Assistant Instructor**, *Dept. of Electrical Engineering, Princeton University*, Princeton, NJ.  
ELE382: Distributed Algorithms and Optimization Methods for Engineering Applications, Fall 2007. Instructor: Dr. Matthew Andrews.
- Sep 2005 — Jul 2006 **Research Assistant**, *Network Theory Laboratory, Dept. of Electronic Engineering, Tsinghua University*, Beijing, P. R. China.  
Designed an energy-efficient routing protocol by Interest Dissemination with Directional Antenna for Wireless Sensor Networks with Mobile Sinks. Co-developed a routing algorithm based upon randomly-delayed clustering, and implemented it on FLOWS platform.
- Sep 2004 — Aug 2005 **Research Assistant**, *State Key Laboratory on Microwave and Digital Communications, Dept. of Electronic Engineering, Tsinghua University*, Beijing, P. R. China.  
IP-based Satellite Video Conference System: Completed the design and implementation of a multi-threaded client-server architecture, image compression techniques and adaptive communication protocols for screen-sharing among terminals.
- Mar 2004 — Sep 2004 **Student Research Task**, *Dept. of Electronic Engineering, Tsinghua University*, Beijing, P. R. China.  
Distributed-arithmetic-based DCT implementation, including software simulation and hardware realization on a Spartan-II FPGA.
- Dec 2001 — Mar 2002 **IPhO Preselected**, *Department of Physics, Fudan University*, Shanghai, P. R. China.  
Advanced training in physics and mathematics, as Chinese preselected candidate for the International Physics Olympiads.

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## Languages

- Chinese **Native**  
English **Fluent**  
German **Elementary**

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## Computer skills

Programming	C/C++, JAVA, Pascal	OS	Linux/Unix, Windows
Scientific	MATLAB, Mathematica, SAS	Typography	L <sup>A</sup> T <sub>E</sub> X, Microsoft Office

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## Awards and Honors

- Sep 2006 — Jun 2007 Fellow in Science and Engineering, Princeton University.
- July 2006 Excellent Graduate Award, Tsinghua University.
- Oct 2005 — Dec 2003 Tsinghua University's Scholarship for Comprehensive Excellence.
- Dec 2002 Tsinghua University's Scholarship for Excellent Freshmen.
- Oct 2001 First Prize Winner in National Olympiad Physics Competition.

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## Publications

**Yihong Wu** and Sergio Verdú. Fundamental limits of almost lossless analog compression. In *Proceedings of IEEE International Symposium on Information Theory*, Seoul, Korea, June 2009.

**Yihong Wu**, Lin Zhang, Yiqun Wu, and Zhisheng Niu. Interest dissemination with directional antennas for wireless sensor networks with mobile sinks. In *ACM SenSys: Proceedings of the 4th International Conference on Embedded Networked Sensor Systems*, pages 99 – 111, Phoenix, AZ, April 2006.

Yiqun Wu, Lin Zhang, **Yihong Wu**, and Zhisheng Niu. Motion indicated interest dissemination with directional antennas for wireless sensor networks with mobile sinks. *IEEE Transactions of Vehicular Technology*, 58(2):977 – 989, February 2009.

Kai Yang, **Yihong Wu**, Jianwei Huang, Xiaodong Wang, and Sergio Verdú. Distributed robust optimization for communication networks. In *Proc. IEEE INFOCOM*, Phoenix, AZ, April 2008.