Curriculum Vitae

Youngmi Hur

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Nationality: South Korea
Gender: Female Marital Status: Married

Employment

July 2008 -	Assistant Professor at the Department of Applied Mathematics and Statistics, Johns Hopkins University
July 2006 - Present	C.L.E. Moore Instructor at the Department of Mathematics, Massachusetts Institute of Technology

Education

Sep. 1999 - Aug. 2006	Ph.D. in Mathematics, University of Wisconsin - Madison
Mar. 1997 - Aug. 1999	M.S. in Mathematics, Korea Advanced Institute of Science and Technology, Korea
Mar. 1993 - Feb. 1997	B.S. in Mathematics, Korea Advanced Institute of Science and Technology, Korea
Mar. 1991 - Feb. 1993	Gyeongnam Science High School, Korea

Awards and Honors

May 2006	John A. Nohel Prize from Mathematics Department, University of Wisconsin - Madison
May 2005	Elizabeth Hirschfelder Fellowship for Graduate Women in Mathematics, Physics and Chemistry from Mathematics Department, University of Wisconsin - Madison
May 2001	Elizabeth Hirschfelder Fellowship for Graduate Women in Mathematics, Physics and Chemistry from Mathematics Department, University of Wisconsin - Madison

Research Interests

1. Wavelets and other Multiscale Data Representation Methodologies
2. Statistical Application of Wavelet Representations
3. Applied Harmonic Analysis
4. Approximation Theory

Publications

1. Y. Hur and A. Ron, L-CAMP: Extremely local high-performance wavelet representations in high spatial dimension
   IEEE Transactions on Information Theory, Vol. 54, No. 5, May 2008, pp.2196–2209
2. Y. Hur and A. Ron, New constructions of piecewise-constant wavelets
   ETNA, Special Volume on Constructive Function Theory 25, 2006, pp.138–157
3. Y. Hur and A. Ron, CAPlets: wavelet representations without wavelets
   submitted

Computer Sciences Skills

1. A member of the development team for the IDR FrameNet Portal, a web-based research tool for time/frequency analysis of data using wavelets (`http://www.waveletidr.org/framenet.html`). Most programming is done in Perl.
2. Ph.D. Minor in Computer Sciences (courses taken: CS302 Intro to Programming, CS412 Intro to Numerical Methods, CS367 Intro to Data Structures, CS514 Numerical Analysis, CS717 Numerical Functional Analysis).
3. Teaching Assistant for a few Computer Sciences courses (CS514 Numerical Analysis, CS515 Intro to Splines and Wavelets).
4. Extensive familiarity with MATLAB and MAPLE, and good familiarity with Perl and Java.

Professional Experience

Referee:

Linear Algebra and Its Applications (LAA)
Selecta Mathematica
Communications on Pure and Applied Analysis (CPAA)

Instructor at MIT :

Spring	2008	18.034 Differential Equations

Teaching Assistant:

Fall	2006 - Fall 2007 (MIT)	18.02 Multivariable Calculus, 18.03 Differential Equations
Summer	1999 - Spring 2006 (UW)	MA114 Algebra and Trigonometry, MA221 Calculus and Analytic Geometry MA217 Calculus with Algebra and Trigonometry II MA272 Topics in Elementary Calculus CS514 Numerical Analysis, CS515 Intro to Splines and Wavelets
Spring	1997 - Spring 1999 (KAIST)	MA101 Calculus I, MA102 Calculus II, MA111 Intro to Linear Algebra MA202 Applied Mathematical Analysis, MA210 Intro to Number Theory

Participation in Selective Meetings

Dec. 2007	Invited speaker at the Applied Mathematics and Statistics Department, Johns Hopkins, Baltimore, MD
Oct. 2007	Invited speaker at the Mathematics Department, Brown University, Providence, RI
Mar. 2007	Invited speaker at the School of Industrial and Systems Engineering, Georgia Tech, Atlanta, GA
Mar. 2006	Invited speaker at the Applied Mathematics and Statistics Department, Johns Hopkins, Baltimore, MD
Nov. 2005	Invited speaker at the International Workshop on Wavelet Frames, Daejeon, Korea
Nov. 2005	Selected speaker at the Workshop on Signal Processing with Adaptive Sparse Structured Representations, Rennes, France
May 2005	Selected attendee at the Workshop on Sparse Representations in Redundant Systems, College Park, MD
Dec. 1996	Selected attendee at the Stockholm International Youth Science Seminar, Stockholm, Sweden

Various Presentations

Dec.	2006	Analysis/Math Physics Seminar, Department of Mathematics, Harvard University
Sep.	2006	Analysis/PDE Seminar, Department of Mathematics, MIT
April	2006	Mathematics Department, University of Wisconsin - Madison
May	2004	CAP representations (in view of function space characterizations) 11th International Conference in Approximation Theory, Gatlinburg, TN