

WEINAN E

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Education

Ph.D.	Mathematics	UCLA	1989
M.S.	Mathematics	Chinese Academy of Sciences	1985
B.S.	Mathematics	University of Science and Technology of China	1982

Positions

9/99-	Professor, Department of Mathematics and PACM, Princeton University
9/97-8/99	Professor, Courant Institute, New York University
9/94-8/97	Associate Professor, Courant Institute, New York University
9/92-8/94	Long Term Member, Institute for Advanced Study, Princeton
9/91-8/92	Member, Institute for Advanced Study, Princeton
9/89-8/91	Visiting Member, Courant Institute, New York University

Awards and Honors

1993	Alfred P. Sloan Foundation Fellowship
1996	Presidential Faculty Fellowship (PECASE)
1999	Feng Kang Prize in Scientific Computing
2003	ICIAM Collatz Prize, awarded at the 5th International Congress of of Industrial & Applied Math.
2005	Elected Fellow of Institute of Physics

Selected Lectures

6/2001	Invited Speaker, Annual Meeting of the American Physical Society, Division of Computational Physics, Boston.
8/2002	Invited Speaker, International Congress of Mathematicians, Beijing.
1/2003	Invited Hour Speaker, 109th Annual Meeting of the American Mathematical Society, Baltimore.
4/2004	Class of '27 Lecturer in Applied Mathematics, Rensselaer Polytechnic Institute.
8/2004	Plenary Speaker, Annual Meeting of the Chinese Society of Industrial and Applied Mathematics, Xiangtan, China.
3/2005	Speaker, School of Mathematics 75th Anniversary Celebration, Institute for Advanced Study.
7/2005	Invited Speaker, American Conference of Theoretical Chemistry, Los Angeles.
8/2005	Keynote Speaker, 12th International Conference on Discrete Simulations in Fluid Dynamics, Kyoto.
10/2005	Plenary Speaker, American Institute of Chemical Engineers Annual Meeting, Topical Conference on Multiscale Modeling, Cincinnati.
7/2006	Semi-Plenary Speaker, 7th World Congress on Computational Mechanics, Los Angeles.
9/2006	Invited Speaker, Annual Meeting of the American Chemical Society, Symposium on the Theory of Rare Events and Accelerated Dynamics, San Francisco.
7/2007	Invited Speaker, International Congress of Industrial and Applied Mathematics, Zurich.

Synergistic Activities

Editorial Board of Journal American Mathematical Society, Archive of Rational Mechanics and Analysis, Journal of Statistical Physics, Communications in Mathematical Sciences, Communications in Contemporary Mathematics, Journal of Turbulence, Continuum Mechanics and Thermodynamics, Communications in Computational Physics, Journal of Computational Mathematics, Chinese Annals of Mathematics, etc.

Co-organizer of Park City Summer School in Mathematics, 1995.

Organizer of the special year on “Stochastic Partial Differential Equations and Turbulence Theory”, Institute for Advanced Study, 2002-2003.

Co-organizer of SIAM Meeting on Material Science, Los Angeles, 2004.

Member of the Scientific Committee, 7th World Congress in Computational Mechanics, Los Angeles, 2006.

Chairman of the Scientific Committee, Center for Computational Science and Engineering, Peking University, 2003-.

Member of the Scientific Advisory Committee for the 7th International Congress of Industrial and Applied Mathematics (ICIAM).

Changjiang Visiting Professor, 2000-2005, Peking University.

Member of American Mathematical Society, American Physical Society, SIAM.

Fellow of Institute of Physics.

Advisors and Mentors

Advisor of master degree thesis: Professor Hongci Huang.

Advisor of doctoral degree thesis: Professor Bjorn Engquist.

Post-doctoral mentor: Professor Robert V. Kohn.

Past Students and Post-docs

Students: Carlos Garcia (NYU, 1999, now at UCSB), Yuan Lui (NYU, 2000, now at Soloman-Brothers), Xiaoming Wu (NYU, 2000, now at Shephard University), Yang Xiang (NYU, 2001, now at Hong Kong University of Science and Technology), Weiqing Ren (NYU, 2002, now at Courant Institute, New York University), Di Liu (PU, 2003, now at Michigan State University), Jerry Yang (PU, 2006, now at Caltech), Minxin Chen (CAS, 2006, now at Shanghai Institute of Biological Sciences), Ming-Yih Wu (PU, 2006, now at Thales Hedge Fund), Dong Li (PU, 2006, now at Institute for Advanced Study), Congming Jin (CAS, 2006, now at HKUST), Dongzhuo Zhou (PKU, 2006, now at Courant Institute).

NYU= New York University, PU=Princeton University, CAS = The Chinese Academy of Science, PKU = Peking University.

Post-docs: Felix Otto (1996-1997, now at University of Bonn), Cyril Muratov (1997-1999, now at New Jersey Institute of Technology), Tim Schulze (1997-1999, now at University of Tennessee), Zydrunas Gimbutas (1999-2000, now at Yale University), Zhongyi Huang (2000-2002, now at Tsinghua University), Xiantao Li (2002-2004, now at Penn State University), Assyr Abdulle (2003-2004, now at University of Edinburgh), Jing Shi (2005-2006, now at University of North Carolina).

Research Interests

Mathematical theory of solids: from atomic to macroscopic scales

Multiscale modeling of solids and complex fluids

Stochastic partial differential equations

Density functional theory for electronic structure analysis

Theory and modeling of rare events with applications in chemistry and material sciences