

RESUME OF CAI-CHENG LU

Department of Electrical Engineering
University of Kentucky
693 Anderson Hall
Lexington, KY 40506

Phone: (859) 257-1644
FAX: (859) 257-3092
E-Mail: cclu@uky.edu

RESEARCH INTERESTS:

Computational electromagnetics, wave scattering, inverse scattering, antenna analysis and design, electromagnetic interaction and radiation, and microwave biomedical applications.

WORK EXPERIENCE:

- ❑ 1999-Present: assistant professor, University of Kentucky
- ❑ 1997-1998: Research Scientist, Demaco, Inc.
- ❑ 1995 - 1997: Visiting assistant professor, research scientist Center for Computational Electromagnetics, Department of Electrical and Computer Engineering, University of Illinois at Urbana-Champaign.
- ❑ 1992 - 1995: graduate research assistant, Department of Electrical and Computer Engineering, University of Illinois at Urbana-Champaign.
- ❑ 1991 - 1992: visiting scholar, Department of Electrical and Computer Engineering, University of Illinois at Urbana-Champaign.
- ❑ 1986 - 1991: instructor and research associates, Department of Electrical Engineering, Beijing University of Aeronautics and Astronautics.

EDUCATION:

- ❑ Ph.D, Electrical Engineering, May 1995, University of Illinois at Urbana-Champaign.
- ❑ M.S., Electrical Engineering, January 1986, Beijing University of Aeronautics and Astronautics.
- ❑ B.S., Electrical Engineering, June 1983, Beijing University of Aeronautics and Astronautics.

ACADEMIC AWARDS

- ❑ National Science Foundation CAREER Award, 2001.
- ❑ Young Investigator Award, Office of Naval Research, 2000.
- ❑ Best graduate student award for research, University of Illinois at Urbana-Champaign.
- ❑ Schlumberger fellowship recipient (1993-1994, 1994-1995).
- ❑ Finalist of 1995 IEEE AP-S student paper competition.
- ❑ National science and technology progress award, Beijing, 1990.
- ❑ Research achievement awards from the Ministry of Aeronautics, Beijing, 1988, 1989

PROFESSIONAL MEMBERSHIP AND ACTIVITIES

- Senior Member of IEEE
- Member of Applied Computational Electromagnetics Society
- Member of Editorial Board of Progress in Electromagnetics Research

PUBLICATIONS (recent)

Book Chapters:

1. C. C. Lu, "Numerical techniques for scattering calculation", Chapter in "Radar cross section calculation and measurement", Edited by G. Y. He, published by Chinese Aeronautics Press, 2007.
2. C. C. Lu, "Scattering calculation of spherical and cylindrical structures—introduction to exact method," Chapter 2 in "Radar cross section calculation and measurement", Edited by G. Y. He, published by Chinese Aeronautics Press, 2007.
3. C. C. Lu, "Integral equation approach and fast solvers," Chapter 4 in "Advanced Electromagnetics Theory," Edited by R. G. Yang, Chinese Education Press, 2007.

Journal Articles:

1. M. Li and C. C. Lu, "A Resonant Extraction Method for Installed Antenna Radiation Calculations", *IEEE Trans. Antennas Propagat.*, vol. 55, no. 8, pp. 2388-2391, Aug. 2007.
2. C. C. Lu and C. Luo, "EM Scattering Computation Using a Hybrid PMCHWT and Volume Surface Integral Equation Formulation", *Applied Computational Electromagnetic Society Journal*, vol. 26, no. 3, Nov. 2007.
3. C. C. Lu, "Improving the Solution Accuracy of Thin Dielectric Approximation with a Vertical Electric Field Component," *Micro. Opt. Tech. Lett.* Vol. 50, no. 7, pp. 1978-1982, May, 2008.
4. X. Shuai, O. Wendroth, C. C. Lu, C. Ray, "Reducing the Complexity of Inverse Analysis of Time Domain Reflectometry Waveforms," *Soil Physics*, vol. 73, no. 1, pp. 28-36, Dec. 2008.
5. J. Markkanen, C. C. Lu, X. D. Cao, and P. Yla-Oijala, "Analysis of Volume Integral Formulation for Scattering by High Contrast Penetrable Objects," *IEEE Trans. Antennas Propagat.*, vol. 60, no. 5, pp. 1863-1870, May 2012 .