

CURRICULUM VITAE

Name: Eric M. Kramer

Positions: Associate Professor of Physics, Simon's Rock College
Visiting Associate Professor of Biology, University of Massachusetts at Amherst

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Education and Appointments

2005-06 (sabbatical). Visiting Associate Professor of Biology, University of Massachusetts at Amherst.
2005-present. Associate Professor of Physics, Simon's Rock College.
1999-2005. Assistant Professor of Physics, Simon's Rock College.
1998-99. Visiting Assistant Professor of Physics, Williams College.
1996-98. Postdoctoral Fellow, Chemistry Department, Brandeis University.
1996. Ph.D. in Physics, University of Chicago.
1990. B.S. in Physics with University Honors, Carnegie-Mellon University

Grants and Awards

2005-06. Visiting Scholar, Discipline Bridging Initiative, University of Nottingham.
2003-06. USDA grant (NRI-CSREES-USDA grant no. 2003-35103-13793).
1997-98. NIH postdoctoral fellowship (National Research Service Award).
1990-93. GAANN graduate fellowship, University of Chicago and Department of Energy

Recent Conferences and Talks

Oct, 2005. Yale University. Invited Talk.

July, 2005. Plant Biology 2005. Seattle, WA.

Aug, 2004. FASEB conference on Mechanisms in Plant Development, VT.

Oct, 2002. Workshop on Long Distance Transport in Plants. Harvard Forest, MA.

June, 2002. Gordon Research Conference on Theoretical Biology. Tilton School, NH.

Nov, 2001. Materials Research Society annual meeting. Boston, MA.

Jan, 2001. Los Alamos National Laboratory, NM. Invited talk.

Outreach

Summer-Fall, 2000. Widespread media attention on the sound from a crumpled candy wrapper, including a *New York Times* article by James Glanz. Radio interviews with BBC, NPR, ABC News and others. TV appearances on *Good Morning America*, Canadian Broadcasting, and CBS *Sunday Morning*.

Publications during last 4 years

Eric M. Kramer

Root gravitropism requires lateral root cap and epidermal cells for transport and response to a mobile auxin signal.

R. Swarup et al. Nature Cell Biology, in press 2005.

PIN and AUX/LAX Proteins: their role in auxin accumulation.

E. M. Kramer, Trends in Plant Science 9: 578-582 (2004).

Wood Grain Patterns at Branch Junctions: Modeling and Implications.

E. M. Kramer and M. H. Borkowski, Trees 18: 493-500 (2004).

Defect Coarsening in a Biological System: The Vascular Cambium of Cottonwood Trees.

E. M. Kramer and J. V. Groves, Phys. Rev. E 67, article no. 041914 (2003).

A mathematical model of pattern formation in the vascular cambium of trees.

Eric M. Kramer, J. Theor. Biol. 216: 147-158 (2002).

Singularities, Structures, and Scaling in Deformed Elastic m-Sheets.

B. A. DiDonna, S. C. Venkataramani, T. A. Witten, & E. M. Kramer, Phys. Rev. E 65: 016603 (2001).

A mathematical model of auxin-mediated radial growth in trees.

E. M. Kramer, J. Theor. Biol. 208: 387-397 (2001).