

Thermal-Fluid Engineering Design and Education



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Physics and Engineering
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Education and Experiences

Ph.D., Mechanical Engineering, University of Massachusetts (1994).
M.S., Mechanical Engineering, University of Massachusetts (1986).
B.S., Physics, Williams College (1980).
Hope College, Associate Professor (1994-).
Meiji Gakuin University, Tokyo, Japan, Visiting Professor (Fall 2004).

Areas of Expertise

Engineering of thermal-fluid systems, Engineering Education, Engineering Design.

Grants and National Service

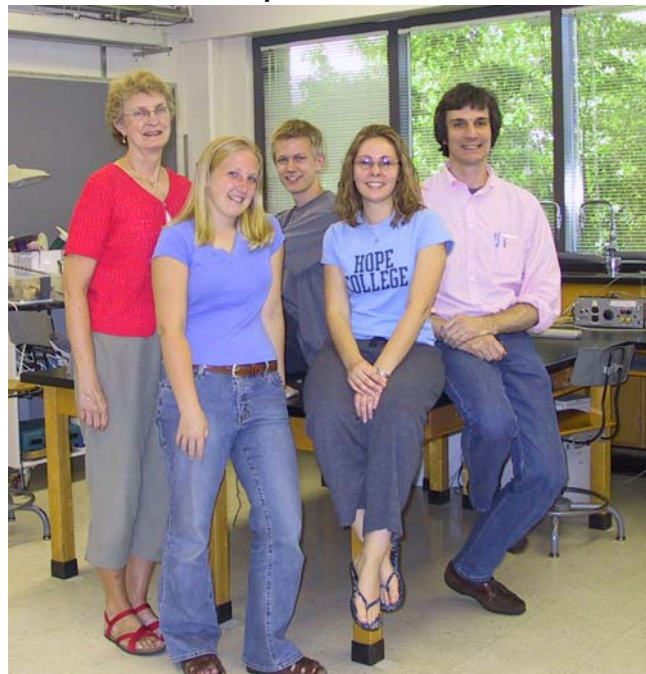
CHAIR, Liberal Education Division, *American Society for Engineering Education*.
FOUNDING CHAIR, *American Society for Engineering Education*, *Technological Literacy Committee*.
CO-ORGANIZER, The Technological Literacy of Undergraduates: Identifying the Research Issues, Held at the National Academy of Engineering, April 18-19, 2005.

CCLI: National Science Foundation Course, Curriculum, and Laboratory Improvement Program, "Technology Literacy Workshop", (\$49,988)(7/04-7/06)
BEE: National Science Foundation, Bridges for Engineering Education Program, "A Case Study of an Established Technological Literacy Course", (\$74,884)(8/03-9/05)
REU: National Science Foundation, Research Experience for Undergraduates in Physics and Engineering at Hope College (\$141,125)(1/01-1/05)

Key Publications and Presentations

Krupczak, J.J., "Reaching Out Across Campus: Engineers as Champions of Technological Literacy", *Liberal Education in 21st Century Engineering* (2004).
Krupczak, J.J., et.al., "Results from Replacing General Physics with Introduction to Engineering in the First Year", *Proceedings of the American Society for Engineering Education Annual Conference* (2004).
Krupczak, J.J., et.al., "Analysis and Design of Helium Gas Warm Up for a 2K Radio Frequency Cryomodule," Brookhaven National Laboratory Technical Report (2005).

Research Description



With support from the National Science Foundation Bridges for Engineering Education Program, Professor Krupczak and the Hope College Education Department collaborated on a study of how students learn.

Prof. Leslie Wessman (education), Kristi Van Dyke (education), Nathaniel Makowski (engineering), Annie Otto (education), John Krupczak (engineering).

Acknowledgements

Assistance from the Brookhaven National Laboratory Cryogenics Group is gratefully acknowledged



Work supported by the National Science Foundation under grants: ILI 9751210, CCLI 9752693, EEC - 0341998, and DUE 0444677.