

# Research

## HIGHLIGHTS

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### PECASE: AFOSR-Funded University Researchers Receive Presidential Award

**Two researchers sponsored by the Air Force Office of Scientific Research were awarded the prestigious Presidential Early Career Awards for Scientists and Engineers March 3, 2000.**

This award is the highest honor bestowed by the U.S. government on young professionals who are at the outset of their independent research careers. The award includes a five-year, \$500,000 research grant.

The two, Drs. Jeffrey Borggaard of Virginia Tech and Kathryn Moler of Stanford, were recognized for their efforts in conducting top quality research in areas of critical importance to the Air Force.

"These researchers have made important contributions to the science and technology needs of the Air Force," said Dr. Joe Janni, director of the Air Force Office of Scientific Research.

Dr. Borggaard, an Assistant Professor of Mathematics at Virginia Tech, received his doctorate in mathematics from Virginia Tech in 1995.

"Dr. Borggaard's work on continuous sensitivity equation methods for nonlinear partial differential equations has produced new and powerful computational tools with wide

applications to the design, control, and optimization of aerospace systems," said Dr. Marc Jacobs, program



Dr. Kathryn Moler



Dr. Jeffrey Borggaard

manager in AFOSR's Directorate of Mathematics and Space Sciences.

"For the Air Force, this work provides the foundation for new software that can reduce design cycle times from years to weeks. The payoffs are exciting applications to the design of aerospace vehicles, optimization of propulsion systems, and the control of aerodynamic flows," he continued.

Dr. Kathryn Moler, an Assistant Professor of Applied

Physics at Stanford also received the PECASE award for her efforts on behalf of the Air Force. She received her doctorate in physics from Stanford in 1995.

"Professor Moler's research on nanomagnets has the potential to create a data storage medium of unprecedented density, possibly as dense as 1,000 Gbits per square inch, compared to today's best technology which offers 10 Gbits per

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