

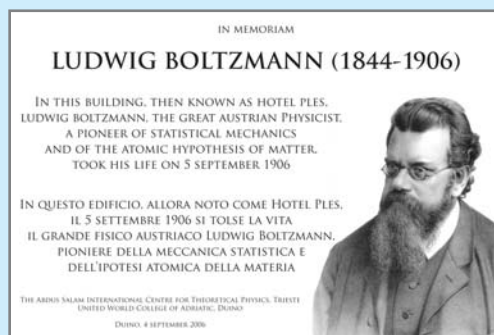
Boltzmann honored on death centenary

This month, which marks the 100th anniversary of his death, the Austrian physicist and mathematician Ludwig Boltzmann is being honored with a commemorative plaque in Duino, Italy. The plaque is to hang in the hotel—now a college—where Boltzmann committed suicide on 5 September 1906 while on vacation with his family.

The plaque is the doing of the International Centre for Theoretical Physics (ICTP) in nearby Trieste and its director, Kathepal Sreenivasan. "We are the physics center in the vicinity," he says. "And Boltzmann had a tremendous impact on me personally." Sreenivasan recalls being about 19 years old when he first learned about Boltzmann: "He had to struggle for recognition. He killed himself at least partly because he couldn't come to terms with the criticism of his work. I resolved that I would never allow the criticism of my work to destroy my creativity."

A ceremony at the plaque hanging includes talks by physicists and local dignitaries. ICTP is also hosting an exhibition about Boltzmann's life and work.

Toni Feder



the market—everything from the calcium powder to cosmetics to neck-support pillows filled with silver nanoparticles. Maynard also calls for international coordination of risk research, establishing a joint government-industry research institute, and creating an interagency oversight group with the authority to coordinate and direct the risk research program.

Given the budget constraints plaguing the entire federal government, Dun-

can and other environmental safety experts doubt there will be new money for nanotechnology risk research. And Teague said creating "one über agency" to regulate research throughout the government would be difficult to implement. "But [Maynard's] report is a thoughtful analysis of what's being done and where things are going," he said. "There needs to be a solid strategy for moving forward."

Jim Dawson

NASA aeronautics lacks money, relevance, NRC says

For more than a year, NASA has been taking flak from legislators and scientists for ongoing cuts to science missions as the agency shifts its priorities to a new manned space vehicle and a goal, mandated by President Bush, of returning humans to the Moon and eventually sending them to Mars. Now concern is growing on Capitol Hill and in the aeronautics industry that NASA's aeronautics program, represented by the first "A" in NASA, is being underfunded to such an extent that it might be, in the words of a recent National Research Council report, on "a glide path to irrelevance."

Two recent NRC reports, one a decadal survey of civil aeronautics and the other a study of the aeronautics programs at NASA, raise serious concerns about the administration's cuts in aeronautics funding and the space agency's failure to restructure the program to reflect its shrinking budget. The decadal

survey, which offers a detailed list of "51 challenges" NASA should address so as to maintain its aeronautics program, notes that funding has been "severely cut during the past few years, falling from over \$1 billion in fiscal year 2004 to a proposed \$724 million in fiscal year 2007."

The budget cuts are even worse than that, Michael Romanowski, a representative of the Aerospace Industries Association of America, told the space and aeronautics subcommittee of the House Committee on Science in July. Funding for NASA's Aeronautics Research Mission Directorate was \$1.54 billion in FY 1994, he said, and 13 years of consistent cuts have resulted in a more than 50% reduction in federal support.

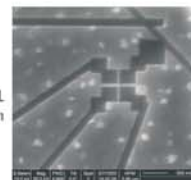
The NRC study on aeronautics challenges faced by NASA says the space agency's aeronautics program is "overshadowed in resources, managerial attention, and political support by the

RT-SHPM

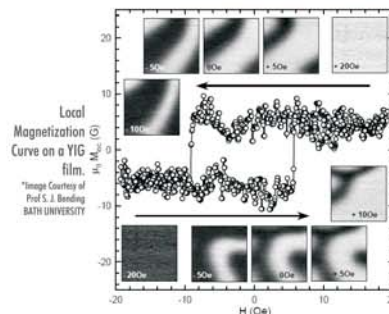
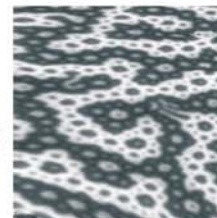
ROOM TEMPERATURE SCANNING HALL PROBE MICROSCOPE



WORLD'S SMALLEST HALL PROBE: 50nm



NdFeB DEMAGNETISED MAGNET



- Scanning Hall Probe Microscopy
 - 50 nm spatial resolution!!
 - Real time scanning with SHPM!!
 - Unprecedented sensitivity: Up to 7mG/Hz^{1/2}
 - AFM or STM Tracking SHPM
- Multi-Mode Operation:
 - MFM, AFM, STM, EFM...

QUANTITATIVE & NON-INVASIVE
MAGNETIC MEASUREMENTS AT
NANOMETER SCALE



**NanoMagnetics
Instruments Ltd.**

www.nanomagnetics-inst.com
info@nanomagnetics-inst.com