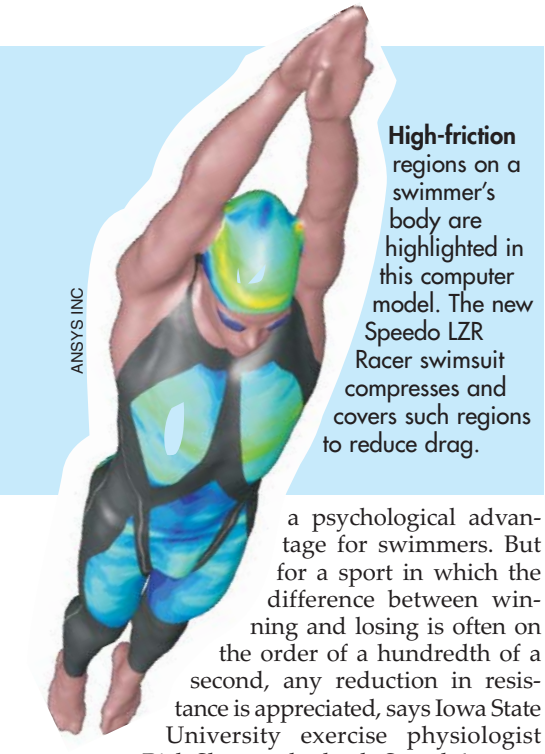
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High-friction regions on a swimmer's body are highlighted in this computer model. The new Speedo LZR Racer swimsuit compresses and covers such regions to reduce drag.

a psychological advantage for swimmers. But for a sport in which the difference between winning and losing is often on the order of a hundredth of a second, any reduction in resistance is appreciated, says Iowa State University exercise physiologist Rick Sharp, who leads Speedo's external R&D team. "After the excitement dies down from the Olympic Games, what I hope the swimming community learns is that this suit has taught us that we stand far more to gain from drag reduction than we previously realized."

Jermey N. A. Matthews

War bill saves Fermilab jobs, boosts science

A federal supplemental appropriations bill signed into law to fund the Iraq war in late June included enough extra money for the Department of Energy to avert the layoff of 90 Fermilab employees and keep alive a neutrino experiment there. But the extra money was a fraction of the $300 million science lobbyists had been pushing for to restore to DOE's physics program.

Jeffrey Kupfer, DOE acting deputy secretary, told Fermilab employees that the department had allocated 60% of the $62.5 million it received in supplemental appropriations to shore up programs at Fermilab and at nearby Argonne National Laboratory, where a $7.5 million infusion is staving off staff reductions at the Advanced Photon Source. In January Fermilab announced it would have to shed 200 jobs (see PHYSICS TODAY, July 2008, page 24). By June, 60 staff members had left or retired. Another 50 individuals opted to accept a buyout offer, but 17 of them, including 12 physicists, reconsidered and will stay on in light of the new funding, according to a lab spokeswoman.

Kupfer announced that $9.5 million will be provided to the NO*ν*A neutrino experiment, which had been zeroed out in the fiscal year 2008 appropriations bill that was enacted in December. The supplemental spending measure provided identical amounts—$62.5 million—to NSF and to NASA's science, aeronautics, and exploration programs. For NSF, it amounts to a small chunk of the $500 million increase in funding that House and Senate appropriators had approved for the current year but that was later rescinded.

The supplemental bill also included $150 million for the National Institutes of Health, which has seen its budget decline in real terms for five years.

Meanwhile, the House and Senate appropriations committees approved spending bills for FY 2009, with both providing the Bush administration's full request of $6.9 billion for NSF—an increase of 12.5% from the current year. Both committees would increase NASA spending next year by a more modest 3.7%, to $17.8 billion.

House appropriators passed a separate funding bill that would boost DOE's basic science programs by $844 million, to $4.9 billion; add $796 million to its energy efficiency and renewable energy programs; and carve $416 million from the administration's $6.6 billion request for nuclear weapons programs. Notably, the committee rejected the administration's $145 million request to manufacture plutonium pits for new W-88 Trident II missile warheads, saying that the newest and most advanced weapon in the atomic arsenal "serves obsolete cold war concepts rather than current or future needs." The committee has told the administration that it won't fund new warheads until the executive branch produces a new weapons strategy reflecting current needs.

The Senate Committee on Appropriations reversed the cuts to DOE weapons programs a few weeks later, adding $227 million to the administration's request. New Mexico Republican Senator Pete Domenici, a staunch defender of the weapons program who is retiring this year, warned committee members to expect a continued assault on weapons programs from a House "that has been permitted to run rampant" and from an indifferent Bush administration. Representative David Hobson (R-OH), who began chipping away at the weapons program during his 2003–06 chairmanship of the DOE subcommittee, also is retiring.

The Senate measure would pare the House request for DOE basic research to $4.6 billion and trim the House increase for energy efficiency and renewable energy to $673 million above the administration's requested level. With President Bush pledging to veto spending bills that exceed his budget request, final action on appropriations is likely to be delayed until after a new president takes office. **David Kramer** ■

web watch

To suggest topics or sites for Web Watch, please visit http://www.physicstoday.org/suggestwebwatch.html. Compiled and edited by Charles Day

http://www.dosits.org

Discovery of Sound in the Sea comprehensibly and accessibly covers nearly every aspect of marine acoustics, from the underlying science to its diverse applications. The website's extensive audio gallery encompasses natural sounds, such as the crackling of shrimp as they snap their claws, and manmade sounds, such as the whirring of a torpedo as it nears its target.

http://asterweb.jpl.nasa.gov/gallery.asp

From its vantage on NASA's *Terra* satellite, the Advanced Spaceborne Thermal Emission and Reflection Radiometer has been collecting high-resolution, multi-waveband images of Earth since December 1999. The **ASTER Online Gallery** is continually updated with new images of lakes, mountains, cities, forest fires, and so on.

http://www.physics.indiana.edu/~hake/GISME-5t-Part1.pdf

Gender Issues in Science/Math Education is the name Richard Hake and Jeffry Mallow have given to their huge list of research papers on how girls and boys, men and women learn and are taught science and mathematics. As of July, the compilation included more than 700 papers.