

Florence fetes Galileo

It's no surprise that Florence, Italy, where Galileo lived much of his life, is hosting many activities in celebration of one of its most famous sons during the International Year of Astronomy 2009, which marks 400 years since Galileo first pointed a telescope at the night sky.

The city's Institute and Museum of the History of Science has created two major exhibitions. One—Galileo, the Medici and the Age of Astronomy—opened in April at Philadelphia's Franklin Institute as part of the IYA event "100 Hours of Astronomy" (see *PHYSICS TODAY*, April 2009, page 20) and will be on display through early September. The other, in Florence from March through August, is Galileo: Images of the Universe from Antiquity to the Telescope. That show's curator, Paolo Galluzzi, describes it as including "items of both science and art to tell the story of how man looked at the sky from the Egyptians to Galileo's age." It's at a temporary site because the museum is under renovation until later this year, when it will reopen as Museo Galileo. It holds the largest collection of original Galileo artifacts, including two telescopes, an objective lens, and home-built instruments.

About 80 km away in Pisa, Galileo's birthplace, an exhibition titled *The Telescope and the Brush* looks at "how interested

Galileo was in art, and how much his discoveries influenced art," says Galluzzi. As examples, Galluzzi points to a painting by Peter

Paul Rubens of the myth of Saturn devouring his child. "He portrayed Saturn made of three bodies, exactly as Galileo described them," says Galluzzi. And in a 1612 painting of the immaculate conception (at left) by Ludovico Cigoli, "for the first time, immediately after Galileo's discoveries, the Virgin is standing on a crescent Moon that was a Galilean Moon, with mountains and valleys."

An international conference held in Florence in late May re-examined Galileo's conflicts with the Roman Catholic Church in terms of history, philosophy, and theology. Topics ranged from the views of various popes through the ages to Galileo as seen during the Nazi time. Other activities include filming the sky with a replica of Galileo's telescope.

In Florence, says Galluzzi, "Galileo is a very important piece of our tradition, not only in science but also in literature—he is one of the greatest writers of Italian literature. And he was a very good musician, so there are also

musical events devoted to Galileo and to the polyphonic approach to music. He was a universal person." The IYA activities, he adds, have gotten "a very warm reception. People are enthusiastic."

Toni Feder



ARCHIVIO FOTOGRAFICO DELL'ISTITUTO E MUSEO DI STORIA DELLA SCIENZA FIRENZE

of subsidies and incentive programs. A tariff program used in Germany and Spain provides producers of renewable energy substantially higher rates than those charged by suppliers of conventionally generated power. Both countries are beginning to roll back their tariffs.

Stimulating demand for PVs may be the most important action that govern-

ment can take to nurture the US industry, said Eric Peeters, global executive director of Dow Corning Corp's solar solutions division. He noted that greater demand for PVs will spur companies to make the investments needed for higher-volume manufacturing processes, which will bring down unit costs. "The solar industry is very young and immature, which means that it is

very inefficient," Peeters said, pointing out that half the polycrystalline raw material used to make PVs is lost as scrap during the manufacturing process.

Demand for PVs can be stoked, Peeters said, with mechanisms such as renewable energy mandates for the utility side and tax credits, rebates, and other incentives for the consumer side.

David Kramer

Marburger calls for a new academic field of study in 'the science of science policy'

Science adviser to George W. Bush says researchers, models, and decision tools could bring more rationality to science budgets and policies.

Anyone following the year-to-year development of US science and technology (S&T) policy would have to conclude that the process is chaotic, ad hoc, and pays little heed to long-term planning. One need only look at the National Institutes of Health, whose budget, after a five-year doubling that

ended in 2003, steadily declined in inflation-adjusted terms for the next five years. Now, mainly as a result of funding provided by the American Recovery and Reinvestment Act (ARRA), NIH is getting a windfall of \$10 billion—a 38% increase over 2008.

A second disconnect between science

policy and its implementation occurred with the passage of the America COMPETES Act in 2007. In response to expert advice that the US lead was slipping fast in a variety of measures of science and innovation, the law authorized a 10-year doubling of federal R&D programs covering basic research in