

The main topics of collaborative research will be magnetic reconnection, plasma turbulence, energetic particles in plasmas, and rotating plasmas. "In each of the four topics," says PPPL director Stewart Prager, "there are major physics conundrums. We are in the process of planning which questions will be the most fruitful to attack."

In addition to the plasma physics center, a collaboration with researchers in Vancouver, British Columbia, Canada, focuses on quantum materials, and two centers in Pohang, South Korea, address the areas of attosecond science and complex materials. Among the centers outside of physics either under way or planned are those in computer science (India), lipid research (India), systems chemical biology (Japan), anthropology and archaeology (Israel), and instabilities in market societies (France). After a fast ramping up that began in 2010, the plan is to create a maximum of two new centers a year, says Berthold Neizert, MPG head of research policy and international relations.

Funding for each center is \$600 000–\$1 million a year for five years, split evenly between the MPG and its partners. The money mostly funds post-docs, workshops and schools, and visits to partner institutions. The centers provide an opportunity for young people "to learn about an international facility without losing their home affiliation," Neizert says.

The MPG has some 82 brick-and-mortar research institutes, including a handful outside of Germany. "Science is international, and it's teamwork," says Neizert. "We think this model [of virtual centers] has the potential to increase the attractiveness of both partners. We want to increase the international visibility for students and post-docs—so more come to Max Planck institutes in Germany and vice versa."

Virtual centers, Prager says, "can be a huge home run. You can get to places you never would have gotten to. Or they can be duds. It all depends on having a core of dedicated people who want to seize the opportunity and run with it."

Toni Feder

## news notes

**Antarctic telescope.** China's Kunlun station on Dome Argus, the highest point of the Antarctic Plateau, now has its first telescope. The 50-cm robotic, steerable AST3-1, which will be used to study variable objects, was installed in February.

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**Observations** from China's Kunlun station in Antarctica are getting started with the first in a trio of telescopes.

Two other telescopes to complete an AST3 trio are set to be installed in January 2014. With three, "we will be able to intensively survey a large area of the sky," says project leader Lifan Wang, director of the Chinese Center for Antarctic Astronomy in Nanjing and an astronomy professor at Texas A&M University. For example, he says, the telescopes will be used to search for exoplanets and, in three different wavelengths "for early supernova discovery and follow-up."

The telescopes are being built in Nanjing at a cost of a couple million dollars each. Wang points to the power supply for the telescope and cameras built by partners at Australia's Univer-

sity of New South Wales as one key to the project's success. "It has to run year-round in that environment, providing power, heat, and internet connectivity, with no human on site. It's very impressive technology."

Plans for Kunlun station also include a 2.5-m optical/IR telescope and a 5-m submillimeter dish (see *PHYSICS TODAY*, January 2011, page 22). **TF**

**Physics faculty jobs.** Faculty numbers are up in US physics departments. In 2010 there were a total of 9400 full-time-equivalent faculty members in 758 physics departments, up from 8200 FTEs in 766 departments a decade earlier.

Departments where the highest degree offered was a bachelor's degree had an average of 5.9 faculty members; where the highest physics degree was a master's, it was 13.3; and in PhD-granting departments, it was 29.2. All of those numbers are higher than 10 years earlier.

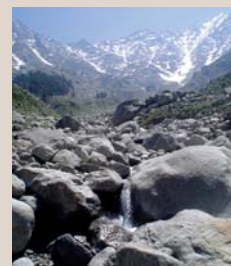
Overall, nearly one-fifth of physics faculty were in temporary or non-tenure-track positions in 2010. Such nonpermanent positions are the easiest to add or cut, so they provide a useful flexibility in a tight economy.

Those and related data are based on a 2010 survey by the Statistical Research Center of the American Institute of Physics. The report, *Number of Physics Faculty Members*, is available at <http://www.aip.org/statistics/trends/reports/awf10physfaculty.pdf>. **TF ■**

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