

charged lepton flavor violation and measurements of electroweak parameters." Such measurements can be made in Japan, he admits, "but SuperB could have done them better."

A significant advance to come out of SuperB R&D is the combination of low emittance with the so-called "crab waist" focus technique to achieve higher luminosity for a given accelerator current. Elements of that approach, which was developed by Pantaleo Raimondi when he was at Italy's National Institute for Nuclear Physics (INFN), are being incorporated into Belle II.

Although Belle II and a proposed upgrade to the Large Hadron Collider Beauty experiment at CERN "offer opportunities to pursue the search for new physics in heavy quarks and leptons," says LHCb collaboration member Marina Artuso of Syracuse University, cancellation of the SuperB experiment "makes the high-energy physics community sad." Still, she recalls her own experience working on BTeV at Fermilab, before it was canceled in 2005: "Nothing is worse than a project that lingers for years and does not come to a positive conclusion." Such limbo is especially difficult for young people, she says, "who may be trapped in an uncertain future where they cannot really choose a different avenue of research."

Members of the LHCb and Belle II experiments hope the axing of SuperB removes uncertainties for funding agencies in other countries that may have been torn between investing in their projects or in SuperB.

Fernando Ferroni, president of the INFN, says his institute will decide soon how to reallocate the €250 million that was committed to SuperB. As possibilities, he points to a tau-charm factory that would "retain most of the work" done for the project and still "give access to flavor physics but running at lower energy" and to an accelerator laboratory that would combine photon science and elementary particle physics research.

Toni Feder

news notes

New Max Planck institute. In November Germany's Max Planck Society announced the founding of the Max Planck Institute for the Structure and Dynamics of Matter (MPISD). Research at the Hamburg institute will focus on understanding matter on the smallest size and time scales.

Ultrafast chemical reactions, phase transitions, and noncrystal biological complexes will be analyzed with a new

generation of experimental tools—from laboratory-scale lasers and electron beams to the European X-Ray Free Electron Laser under construction in Hamburg. "These tools enable measurements of the microscopic structure of matter as it evolves on femtosecond, or

even attosecond, time scales," says Andrea Cavalleri, one of two MPISD founding directors.

The institute will grow to up to 120 permanent positions, and will encompass experimental and theoretical research in physics, chemistry, and life sciences. **TF ■**

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