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For immediate release

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Meet dark-matter researchers on Neutrino Day

Free science festival at the Sanford Lab is Saturday, July 14
Hands-on activities for young scientists, hoist-room tours and science talks for everyone
Shuttles from the Homestake Visitor Center to the Sanford Lab begin at 8 a.m.

Lead, S.D.—Meet researchers looking for a mysterious substance called “dark matter” during Neutrino Day—the Sanford Underground Laboratory’s free science festival. The fifth annual Neutrino Day is on Saturday, July 14, from 8 a.m. to 2 p.m. Neutrino Day also includes hands-on activities for young scientists, free hoist-room tours and short science talks for everyone.

Mysterious “dark matter” is the most abundant form of matter in the universe, but it’s never been detected. The LUX experiment—nearly a mile underground in the Sanford Underground Laboratory—will be the world’s most sensitive dark-matter detector. Neutrino Day visitors can talk live with LUX researchers by high-definition videoconference.

Neutrino Day also features four 30-minute science talks, beginning on the hour:

- 9 a.m. Early cosmic-ray research from the Stratobowl, with Von Liebman of the South Dakota Air and Space Museum
- 10 a.m. Current cosmic-ray research in the U.S. and China, with physicists Xinhua Bai of the South Dakota School of Mines and Technology and visiting physicist Jiali Liu
- 11 a.m. Neutrinos as their own anti-particle, with University of South Dakota physicist Vincente Giuseppe
- 12 p.m. Making the world’s purest copper, with South Dakota School of Mines chemist Cabot-Ann Christofferson

Activities for would-be scientists of all ages will include:

- Physics and engineering activities
- Cosmic-ray experiments
- Earthquake slinkies
- Tiltmeters for everyone
- Lasers and fiber optics for fun
- Sanford PROMISE activities for young scientists
- Geology presentations at the Homestake Visitor Center
- Hoist-room tours through a tunnel called “the Ramp.” (Sturdy shoes required. No open toes, sandals or flip-flops.)

The last shuttle back to the Homestake Visitor Center leaves the Sanford Lab about 2 p.m. Plan to come to Neutrino Day early enough on Saturday morning to enjoy all the activities. And remember, sturdy shoes are required for the hoist-room tours. For a handy schedule of events, download our flyer at <http://bit.ly/neutrinoflyer>

For more information, contact Sanford Lab Communications Director Bill Harlan (information above).