



Underground Research Facility

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South Dakota Science and Technology Authority

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Neutrino Day returns to Lead, SD, on July 9

Sanford Underground Research Facility's signature event features popular science celebrity, Physics Girl, and more Neutrino Day favorites

LEAD, SD— On Saturday, July 9, the Sanford Underground Research Facility's (SURF) signature event, Neutrino Day, returns to Lead, South Dakota. For two years, the COVID-19 pandemic kept SURF's annual free science festival in a virtual world. This year, Neutrino Day returns to an in-person format, bringing all the excitement and adventure of past Neutrino Days.

"After two years of Neutrino Day in a virtual format, we are truly excited to host this year's event face-to-face in Lead," said Mike Headley, executive director of SURF. "Inspiring learning across generations is a major part of SURF's mission, and Neutrino Day is our flagship community outreach event with a strong focus on learners of all ages."

Neutrino Day's headlining speaker is Dianna Cowern, creator and host of the viral "Physics Girl" YouTube series. With over 2 million subscribers, "Physics Girl" is a resource for fun physics videos and has featured such legendary figures as Bill Nye.

"We are so excited to bring Dianna to SURF for Neutrino Day," said Constance Walter, communications director. "She has an enthusiasm for physics and passion for education that fits beautifully with the mission of Neutrino Day and SURF."

Cowern researched dark matter as an undergraduate at MIT and low-metallicity stars as a post-baccalaureate research fellow at the Harvard-Smithsonian Center for Astrophysics—before working at GE as a software engineer designing mobile apps. Now, she invites everyone into the world of physics through experiments, demonstrations and cool new discoveries.

"Usually, when I'm invited to give a talk, it's at a conference center. I'm not often invited to give a talk at a cutting-edge, state-of-the-art research facility!" Cowern said. "SURF is the perfect backdrop for setting up excitement for science." Cowern's talk is our Neutrino Day finale and will take place on Saturday, July 9, at 4 p.m. at the Historic Homestake Opera House.

Cowern's talk follows a full day of demonstrations, hands-on activities and speakers.

The Neutrino Day speaker line-up includes in-person talks from Dr. Pete Doucette on how EROS's Landsat satellites image the Earth's surface and Dr. Claire David on how exactly the Deep Underground Neutrino Experiment will uncover the mysteries of neutrinos. Plus, peer into underground lab spaces with livestreams from the 4850 Level cleanroom with Dr. Brianna Mount and the 4100 Level geothermal research test site with researchers Dr. Paul Schwering and Dr. Hunter Knox. See our full speaker line-up: <https://www.neutrinoday.com/agenda>

Attendees will find all their Neutrino Day favorites and discover new experiences. Tour the Yates Hoistroom, where massive machinery built in the 1930s are still in use today to transport scientists and research equipment to laboratories nearly 5,000 feet below the surface. Watch wild science demonstrations from "Science Steve" Rokusek.

Learn about the geology that has defined the Black Hills region for millennia. Detect invisible particles with a cosmic ray detector and cloud chamber. Build a DNA bracelet. Monitor the Earth's rumblings with a raspberry shake seismometer. Test your archeology skills with a fossil-matching activity. Peer into the Universe with the Journey Museum's immersive geodome or take a look inward with Monument Health's giant inflatable heart and lungs. Discover these experiences and so much more at Neutrino Day. See our activities overview: <https://www.neutrinoday.com/anytime-activities>

Neutrino Day takes place at locations across Lead, including the Sanford Lab Homestake Visitor Center, the Sanford Underground Research Facility, the Handley Recreation Center and the Historic Homestake Opera House. Start your day at the Visitor Center, then take buses to other locations throughout Lead.

Tickets for the Yates Hoistroom tour are available at the Visitor Center. Tours are free, but there is limited availability, so get yours in the morning!

To plan your Neutrino Day experience, visit www.neutrinoday.com.

Sanford Underground Research Facility is operated by the South Dakota Science and Technology Authority (SDSTA) with funding from the Department of Energy's Office of Science. Our mission is to advance world class science and inspire learning across generations. Visit SURF at www.sanfordlab.org.