



CONFERENCE SCHEDULE

TUESDAY, MAY 14, 2019

LOW BACKGROUND WORKSHOP:

High Purity Germanium Detectors:

Room EEP 252 (8:45-10:30)

8:45: **Brianna Mount,** Low Background Counting at SURF
9:00: **Ryan MacLellan** The nEXO background control program
9:30: **Drew Alton** DarkSide 20k Materials Assay
10:00: **Matthew Lassiter** A Toolbox for High Purity Germanium Detector Geometry Design

COFFEE BREAK:

Rooms EEP 209 and 246 (10:30-11:00)

Environmental Background and New Detectors:

Room EEP 252 (11:00-1:00)

11:00: **Sally Shaw** Measurement of the Gamma Ray Background in the Davis Cavern at SURF
11:30: **Paul Barton** Ultra Low Background Front End Electronics for the Majorana Demonstrator
12:00: **Richard Saldanha** Measuring cosmogenic activation rates in active detector material
12:30: **Madan Timalcina** Neutron Calibration and Simulation for the LZ Dark Matter Experiment

LUNCH:

Rooms EEP 251 A (1:00-2:00)

Radon Assay and Suppression:

Room EEP 252 (2:00-3:00)

2:00: **Joseph Street** Radon Background Control for the SuperCDMS SNOLAB Dark Matter Experiment
2:30: **Michael Bowles** Evaluation of Radon Emanation and Diffusion for SuperCDMS SNOLAB
3:00: **Eric Morrison** Radon Mitigation in the LZ Experiment

COFFEE BREAK:

Rooms EEP 209 and 246 (3:30-4:00)

Radon Assay and Suppression (continued):

Room EEP 252 (4:00-5:00)

4:00: **Nicholas Chott** Radon Emanation Assay Results for the LZ Experiment
4:30: **Marcus Hall** Radon Emanation Measurements for the LZ Dark Matter Experiment

WEDNESDAY, MAY 15, 2019

PLENARY: Opening Plenary

Room EEP 252 (8:30-10:00)

8:30: Demitris Kouris	Welcome
8:40: Whitney Rencountre II	The Sacred Site in the Black Hills
9:10: Cabot-Ann Christofferson	Radiopure Material Development for Next Generation $0\nu\beta\beta$ Experiments
9:30: Dongming Mei	Advanced Materials for Nuclear and Particle Physics

COFFEE BREAK/POSTER SESSION:

Rooms EEP 209 and 246 (10:00-10:30)

PLENARY: Neutrino Oscillations

Room EEP 252 (10:30-12:15)

10:30: Shirley Li	Theory Overview on Neutrino Oscillations
11:00: Jeremy Hewes	Long-Baseline Neutrino Experiment NOvA and Comparison to T2K
11:30: Jingbo Wang	Status of the Deep Underground Neutrino Experiment (DUNE)

GROUP PHOTO/LUNCH:

Quad then Room: Surbeck Center (12:15-2:00)

PARALLEL: Dark Matter I

Room EEP 253 (2:00-3:40)

2:00: Moo Hyun Lee	COSINE-100: A WIMP dark matter experiment
2:20: Radomir Smida	The DAMIC dark matter experiment: status and prospects
2:40: Sudip Poudel	FCPs Search with CDMSlite Run2a
3:00: Ruslan Podviianiuk	Data Visualization of the SuperCDMS Experiment

PARALLEL: Neutrino Oscillations I

Room EEP 252 (2:00-3:40)

2:00: Marianetta Wospakrik	Recent Physics Results of the MicroBooNE Experiment
2:25: Andrea Pocar	Solar Neutrino Physics with Borexino
2:50: Robert Svoboda	Physics of the Theia Detector
3:15: Joachim Wolf	The KATRIN neutrino mass experiment

PARALLEL: Neutrinoless Double-Beta Decay I

Room EEP 254 (2:00-3:40)

2:00: John Hardin	Current Status and Future Prospects for KamLAND-Zen 800
2:25: Tanner Kaptanoglu	Neutrinoless double beta decay with SNO+
2:50: Michinari Sakai	Results from the CUORE experiment
3:15: Tyana Stiegler	The nEXO Experiment

COFFEE BREAK

Rooms EEP 209 and 246

PARALLEL: Material Science

Room EEP 253 (4:00-5:40)

4:00: Mathbar Raut	Characterizing Germanium (Ge) crystals for developing Ge detectors
---------------------------	--

4:20: Sanjay Bhattarai	Deep level impurity characterization in developing Germanium detectors for detecting rare event physics
4:40: Pramod Acharya	Purification of Ge ingots for growing crystals in developing dark matter detectors
5:00: Hao Mei	Crystal growth for developing germanium detectors with internal charge amplification for low-mass dark matter
5:20: Wenzhao Wei	Investigation of Amorphous Germanium Contact Properties with Planar Detectors Made from USD-Grown Germanium Crystals

PARALLEL: Neutrinoless Double-Beta Decay II

Room EEP 252 (4:00-5:40)

4:00: Moo Hyun Lee	AMoRE: A neutrinoless double beta decay experiment
4:25: Benjamin Jones	Status of NEXT
4:50: Clint Wiseman	Current status of the Majorana Demonstrator and outlook for LEGEND

PARALLEL: Nucleon Decay & Astrophysics

Room EEP 254 (4:00-5:40)

4:00: Aaron Higuera	Search for baryon number violating processes at DUNE
4:25: Robert Pattie	TBA
4:50: Thomas Kadlecik	Underground Measurement of the $^{22}\text{Ne}(\alpha, n)^{25}\text{Mg}$ and $^{22}\text{Ne}(\alpha, \gamma)^{26}\text{Mg}$ Cross Sections at Low Energies

WEDNESDAY NIGHT: DINNER ON YOUR OWN

THURSDAY, MAY 16, 2019

PLENARY: Underground Science

Room EEP 252 (8:30-9:00)

8:30: Jaret Heise	The Sanford Underground Research Facility
--------------------------	---

PLENARY: Neutrinoless Double Beta Decay

Room EEP 252 (9:00-10:00)

9:00: Steven Elliott	Future Experiments for Double-Beta Decay
9:30: Jonathan Engel	Developments in the Theory of Double-Beta Decay

COFFEE BREAK/POSTERS:

Rooms EEP 209 and 246 (10:00-10:30)

PLENARY: Dark Matter

Room EEP 252 (10:30-12:15)

10:30: Pearl Sandick	Dark Matter Overview
11:05: Hugh Lippincott	Dark Matter Searches with Liquid Nobles
11:40: Jodi Cooley	Dark Matter Searches with Solid-State Detectors

LUNCH:

Room: Surbeck Center (12:15-2:00)

SURF TOURS (12:15-6:00)

PARALLEL: Neutrino Oscillations II

Room EEP 253 (2:00-3:40)

2:00: **David Martinez Caicedo**

The Daya Bay Reactor Neutrino Experiment

2:25: **Juergen Reichenbacher**

New Results from the Double Chooz Experiment

PARALLEL: Dark Matter II

Room EEP 252 (2:00-3:40)

2:00: **Drew Alton**

Results and Plans of DarkSide

2:25: **Michael Clark**

Results from XENON1T and status of the XENONnT upgrade

2:50: **Nicholas Chott**

Status of the LZ Experiment

3:15: **Alvine Kamaha**

A Next-Generation Liquid Xenon Observatory for Dark Matter and Neutrino Physics

COFFEE BREAK/POSTERS:

Rooms EEP 209 and 246 (3:40-4:00)

PARALLEL: Dark Matter III

Room EEP 252 (2:00-3:40)

4:00: **Maryvonne De Jesus**

SubGeV Dark Matter searches with EDELWEISS

4:25: **Francisco Vazquez de Sola**

Review of the NEWS-G experiment

4:50: **Andreas Biekert**

HeRALD: Probing Sub-GeV Dark Matter with Superfluid Helium-4

5:15: **Lindsey Bignell**

The SABRE Dark Matter Experiment

CONFERENCE BANQUET:

Rushmore Hotel Grand Ballroom

Cash Bar 6:00-7:00, Dinner 7:00-9:00

FRIDAY, May 17, 2019

PLENARY: Geology

Room EEP 252 (8:30-10:00)

8:30: **Bill Roggenthen**

Rock Properties and Fracturing at the Sanford Underground Research Facility

9:15: **Samuel Voegeli**

Development of Thermal Breakout Technology for Determining the Maximum Horizontal In Situ Stress

COFFEE BREAK/POSTERS:

Rooms EEP 209 and 246 (10:00-10:30)

PLENARY: Nuclear Physics and Biology

Room EEP 252 (10:30-11:45)

10:30: **Frank Strieder**

Nuclear Astrophysics Underground: From CASPAR to DIANA

11:15: **Tyler Borgwardt**

First underground measurements at CASPAR

LUNCH:

Room Surbeck Center (12:15-2:00)