CASST 2024 / Program Monday, August 19, 2024

CASST 2024

Monday, August 19, 2024

Presentations: Session I Juliette Deloye - Classroom Building, Room C-203 (10:50 AM - 12:30 PM)

| time | [id] title | presenter |
|----------|--|----------------------|
| 10:50 AM | [9] All hands on DEAP | BUI, Trang |
| 11:00 AM | [11] External AmBe Calibrations in SNO+ | O'NEILL, Cody |
| 11:10 AM | [46] Building database for HELIX | SUN, Kaan |
| 11:20 AM | [20] Bringing Astroparticle Physics to the Classroom | ACRES, Emma |
| 11:30 AM | [22] The Search for Long-Lived Particles: Construction of MATHUSLA Detector Test Stand | LAU, Alex |
| 11:40 AM | [16] Cooling the nEXO Photomultiplier Tube Testing Setup and Improving Data Analysis Scripts | PAROSKI, Lazar |
| 11:50 AM | [39] Low Energy Excess Characteristics for CUTE HVeV | TOPP-JOHNSON, Emilia |
| 12:00 PM | [33] Characterization and Mitigation of Decoherence Sources in Superconducting Qubits | AHMED, Yusuf |

| time | [id] title | presenter |
|---------|--|------------------------|
| 1:45 PM | [23] Development of advanced photon-detection techniques for neutrinoless double beta decay studies with nEXO. | RASCHETTI, Eliot |
| 1:55 PM | [13] Developing Machine Learning Techniques for Particle Flow in the ATLAS Experiment | HIMMENS, Joshua |
| 2:05 PM | [6] SNO+ and Radon | PALESHI, Keegan |
| 2:15 PM | [34] DEAP-3600 Hardware Upgrades and Verifying the Energy Reconstruction in Data Reprocessing | IQBAL, Ayesha |
| 2:25 PM | [43] Room Temperature SiPM Charcterization for use in HAICU | CHARLESWORTH, Zach |
| 2:35 PM | [35] Are Supermassive Stars in Primordial Halos a Source of Observable Gravitational Waves? | Mr THIBAULT, Florent |
| 2:45 PM | [18] Staying Cool, The Thermoelectric Cooling of SiPMs | HACOT-SLONOSKY, Julien |

| time | [id] title | presenter |
|---------|---|------------------|
| 3:35 PM | [3] Measurements of a Magnetically Shielded Room for a Neutron EDM Experiment | HEPWORTH, Thomas |
| 3:45 PM | [28] Simulating In-Orbit Performance for the CASTOR Telescope. | NAQVI, Wasi |
| 3:55 PM | [41] Modeling Trigger Delay of the SuperCDMS experiment. | WU, Tom |

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| 4:05 PM | [25] Luminescence Testing of Materials in the Scintillating Bubble Chamber Experiment | HAYES, Alex |
|---------|--|-------------------------------------|
| 4:15 PM | [8] SNO+ Neck Events Analysis | ZHOU, Nelson |
| 4:25 PM | [24] Development of a barium tagging technique for the future nEXO detector | DE LA CRUZ NAVARRO, Emilio Yahir |
| 4:35 PM | [17] DDA Quantification and Umbilical Cleaning | LEVESQUE, Danica |
| 4:45 PM | [29] Performance Evaluation of Radon Monitors with SNOLAB and Health Canada | Mr VICOL, Alexander |
| 4:55 PM | [45] Studies on the temperature dependent drift velocity for the HELIX Drift Chamber Tracker | BARSKY-GILES, Gabrielle |

CASST 2024 / Program

Tuesday, August 20, 2024

Tuesday, August 20, 2024

Presentations: Session IV Pierre Gorel - Classroom Building, Room C-203 (8:45 AM - 10:45 AM)

| time | [id] title | presenter |
|----------|--|------------------|
| 8:45 AM | [32] Construction and Testing of PICO-500 Muon Veto Calibration System | GREENALL, Emma |
| 8:55 AM | [36] Flasher Events; The Analysis of a Potentially Problematic Background in the DEAP3600 Dark Matter Search | POSER, Matt |
| 9:05 AM | [26] DEAP-3600: Hardware Upgrades and 'Flasher' event Analysis | SHAH, Aarchi |
| 9:15 AM | [12] Lucas Cell Simulation using Geant4 | SUYS, Justin |
| 9:25 AM | [21] SNO+ Americium-Beryllium Source Calibration and Simulation | FENLON, Noah |
| 9:35 AM | [27] Chroma Simulation of SiPM Stave Testing for nEXO | GÉLINAS, Sophie |
| 9:45 AM | [40] DEAP-3600 Hardware Upgrades & Liquid Level Estimation Using PMT Rates | MACDONALD, Rory |
| 9:55 AM | [31] SNO+ Transfer Station | KAINTH, Gurpreet |
| 10:05 AM | [47] Machine Learning for Event Position Reconstruction in Germanium Detectors | CALLJEJA, Mary |
| 10:15 AM | [10] Beyond the Classroom: Investigating Gendered Imposterism in Undergraduate Physics | JEKIC, Katharine |

Presentations: Session V Mark Ward - Classroom Building, Room C-203 (1:15 PM - 3:15 PM)

| time | [id] title | presenter |
|---------|---|---------------------|
| 1:15 PM | [14] Ab initio Combined Neutrino Mass Limits | SHICKELE, Taiki |
| 1:25 PM | [37] Optimizing the TUCAN Experiment for Precision Measurements of Ultracold Neutron (UCN) Properties | Mr DRURY, Kyle |
| 1:35 PM | [30] Further analysis with metric-affine f(R) gravity | HASAN DEJRAH, Rafid |
| 1:45 PM | [44] Machine Learning Meets Ancient Geology in the search for dark matter | CHEBET, Sharleen |
| 1:55 PM | [19] Background mitigation for the SNO+ experiment | CAO, Jiarui |
| 2:05 PM | [5] DEAP3600 Hardware Upgrades and Lightyield Automation | MONK, Cheyanne |
| 2:15 PM | [38] Diffuser Ball Light Simulations: An Analysis of Geometry, Optical Properties and Isotropy | NITU, Irina |
| 2:25 PM | [42] Stepping Up Precision: Automated SiPM Characterization for the nEXO Experiment | CHAMPAGNE, Grace |
| 2:35 PM | [15] Argon removal from liquid nitrogen using zeolites | CABRAL, Franco |
| 2:45 PM | [7] Observation of neutrino flux from Supernovae and the Sun with semiconductor cryogenic detectors. | PACHECO, Rodrigo |