



# Seattle Snowmass Summer Meeting 2022

## Monday, 18 July 2022

**Poster Session: Poster Session - 211 South Ballroom (19:00 - 21:20)**

[id] title	presenter	board
[18] Distributed Coupling Linac for Efficient Acceleration of High Charge Electron Bunches	DHAR, Ankur	
[15] Weighing the Axion with Muon Haloscopy	Dr BRAY-ALI, Noah	
[31] The Axion Plasma Haloscope	DEMARTEAU, Marcel	
[32] GAMBIT (The Global and Modular BSM Inference Tool)	CORNELL, Jonathan	
[723] The Southern Wide-field Gamma-Ray Observatory (SWGGO)	ENGEL, Kristi	
[331] ADMX Run 1c HiRes Analysis	HIPP, Alexander	
[330] Can tabletop experiments discover the graviton?	DANIELSON, Daine SATISHCHANDRAN, Gautam WALD, Robert M.	
[94] Superconducting Nanowire Single Photon Detectors for sub-GeV Dark Matter Searches	LUSKIN, Jamie	
[91] Stasis in an Expanding Universe: A Recipe for Stable Mixed-Component Cosmological Eras	THOMAS, Brooks	
[82] Search for Neutral Long-lived Particles Decaying in the CMS Endcap Muon Detectors	WANG, Christina	
[80] Bounds on Right Handed Neutrino Parameters from Observable Leptogenesis	SANDNER, Stefan	
[77] Low-Energy Electron-Track Imaging for a Liquid-Argon Time-Projection Chamber using Probabilistic Deep Learning	BUUCK, Micah	
[74] Searching for rare processes in short-baseline neutrino experiments with liquid argon time projection chambers	GE, Guanqun	
[73] Fiber-optic diagnostic system for future accelerator magnets	BALDINI, Maria	
[87] Searching for Wavelike Dark Matter with SRF Cavities	CERVANTES, Raphael	
[68] Improving the hadron EDM upper limit using doubly-magic proton and helion beams	TALMAN, Richard	
[67] Future Compact Multi-TeV e+e- and Gamma-Gamma Collider Opportunities Based on Advanced Plasma and Structure Accelerators	TURNER, Marlene	
[65] Advanced RF Structures for Wakefield Acceleration and High-Gradient Research	LU, Xueying	
[61] Real-time, intelligent data processing for the next-generation of particle imaging detectors	Dr KALRA, Daisy	
[55] MeV Gamma Ray Signatures from Dark Matter Annihilation and Evaporating Primordial Black Holes in the GRAMS Experiment	LEYVA, Jonathan	
[57] Probes of New Physics with MAGIS-100	TEMPLES, Dylan	

<b>[52] A sample Algorithm Processing Unit implementation with the deployment of the deep neural network model for the Global Event Processor trigger subsystem for HL_LHC Upgrade at ATLAS</b>	JIANG, Zhixing	
<b>[51] Graph Neural Network for Large Radius Tracking</b>	WANG, Chun-Yi	
<b>[44] U.S. Participation in the next-generation gamma-ray facility, the Cherenkov Telescope Array Observatory</b>	SAHA, Lab	
<b>[64] Longitudinally polarized ZZ scattering at a muon collider</b>	YANG, Tianyi	
<b>[49] Deep Lorentz Invariants for Particle Physics</b>	Dr BOGATSKII, Alexander OFFERMANN, Jan	
<b>[40] Towards an Interpretable Data-driven Trigger System for High-throughput Physics Facilities</b>	TOSCIRI, Cecilia	
<b>[37] Higgs boson decay width and couplings at muon collider</b>	GIAMBASTIANI, Luca	
<b>[36] Machine-detector interface studies for a multi-TeV muon collider</b>	LECHNER, Anton	
<b>[35] Exploring the lifetime and cosmic frontier with the proposed MATHUSLA experiment</b>	PROFFITT, Mason	
<b>[63] Study of Electroweak Phase Transition in Exotic Higgs Decays at the CEPC</b>	LI, Ke	
<b>[12] Reshaping THz Near-Fields for Efficient Particle Acceleration</b>	GABRIEL, Annika	
<b>[30] Anomalous quartic gauge couplings at a muon collider</b>	SCHUY, Alexander	
<b>[29] Detector performance for Higgs physics measurements at muon collider</b>	BUONINCONTRI, Laura	
<b>[11] High efficiency microwave-optical transduction for quantum sensing and computing</b>	ZORZETTI, Silvia	
<b>[60] Modeling TXS 0506+056 Neutrino Flares for AMEGO-X</b>	ENGEL, Kristi	
<b>[28] <math>H \rightarrow \mu\mu</math> at a 3-TeV muon collider</b>	MONTELLA, Alessandro	
<b>[24] FASER Tracker Detector - Commissioning, Installation, and Functionality</b>	SHIVELY, Savannah	
<b>[20] Low energy calibration and characterization of novel dark matter detectors with a scanning laser device</b>	STIFTER, Kelly	
<b>[89] Space quantum technology and planetary data as probes of dark matter profiles</b>	TSAI, Yu-Dai	
<b>[23] Quantum Computing Simulation for Collective Neutrino Oscillations</b>	AMITRANO, Valentina	
<b>[14] A Novel Dense Fiber Array for Astronomical Spectroscopy</b>	NATHAN, Sayer	
<b>[10] Development of a hybrid amorphous selenium/CMOS charge sensor for the Selena neutrino experiment</b>	NI, Xiaochen	
<b>[8] Probing axion dark energy using late-time polarized SZ with CMB</b>	HOTINLI, Selim	
<b>[5] Muon monitor signal to predict NuMI beam parameters and horn current by applying Machine Learning techniques</b>	WICKREMASINGHE, Don Athula	
<b>[9] Probing ultra-light axions with the 21-cm signal during Cosmic Dawn</b>	HOTINLI, Selim	
<b>[6] Julia language for HEP analysis: faster time to insight and enabling more complex analysis</b>	LING, Jerry	
<b>[4] Testing Lorentz and CPT symmetries in High Energy Collisions</b>	Prof. VIEIRA, Alexandre	
<b>[1] Metastable anti-branes</b>	NGUYEN, Nam	
<b>[324] Invisible diversity. Are hidden disabilities hiding potential for physics?</b>	PSIHAS OLMEDO, Fernanda	
<b>[90] Search for exotic B decays and low mass dimuon resonances using data scouting at CMS</b>	ROUTRAY, Hardik	

[88] <b>BREAD: Broadband Reflector Experiment for Axion Detection</b>	KNIRCK, Stefan	
[86] <b>Detecting Dark Matter with a Qubit</b>	LYNN, Morgan	
[85] <b>Superconducting Nanowire Single Photon Detectors for sub-GeV Dark Matter Detection</b>	LUSKIN, Jamie	
[83] <b>Celeritas: : HEP detector simulation on GPUs</b>	JOHNSON, Seth R.	
[95] <b>Neutrino flavor equilibration and <math>\nu p</math> process nucleosynthesis in core-collapse supernovae</b>	PATWARDHAN, Amol	
[78] <b>SQMS axion searches based on <math>Q_0 \approx 10^{10}</math> multimode superconducting cavities</b>	GIACCONE, Bianca	
[76] <b>Constraining nuclear matrix elements from lattice QCD for beyond the Standard-Model explorations</b>	ILLA SUBINA, Marc	
[75] <b>Beam Test Facilities for R&amp;D in Accelerator Science and Technologies</b>	POWER, John	
[72] <b>The Deep Junction LGAD: Concept and Progress</b>	ZHAO, Yuzhan	
[71] <b>The Snowball Chamber: Supercooled Water for Dark Matter, Neutrinos, and General Particle Detection</b>	Prof. SZYDAGIS, Matthew	
[70] <b>Probing heavy Majorana neutrino pair production at ILC in a <math>U(1)_{\text{B-L}}</math> extension of the Standard Model</b>	NAKAJIMA, Jurina	
[69] <b>Toward CUPID-1T</b>	SPELLER, Danielle	
[66] <b>A study of simulation tools and manufacturing methods for multi-functional carbon composite particle detector mechanics and support structures</b>	KARMAKAR, Sushrut	
[62] <b>Prospects for the measurement of ttH production in the opposite-sign dilepton channel at <math>\sqrt{s} = 14</math> TeV at the High-Luminosity LHC</b>	KORAKA, Charis Kleio	
[93] <b>Stau study at the ILC and its implication for the muon g-2 anomaly</b>	Dr KAWADA, Shin-ichi	
[13] <b>Updated Results from HAYSTAC's Quantum-Enhanced Search for Dark Matter Axions</b>	JEWELL, Michael	
[92] <b>Cosmogenic Background Mitigation at the ICARUS</b>	BEHERA, Biswaranjan	
[84] <b>The LUX-ZEPLIN (LZ) Experiment: Searching for direct evidence of dark matter</b>	WANG, Yue	
[58] <b>Bootstrapping the Muon Collider: Massless Neutrinos in the g-2 Delivery Ring</b>	CAMERON, Peter	
[56] <b>A novel ML-based method of primary vertex reconstruction in high pile-up condition</b>	ZHAO, Haoran	
[54] <b>Development of ultrafast silicon sensors for precision timing and 4D tracking</b>	MOLNAR, Adam	
[50] <b>Transforming U.S. Particle Physics Education</b>	VELAN, Vetri	
[48] <b>PIONEER: Precision measurements of rare pion decays</b>	LABOUNTY, Joshua	
[46] <b>The Cherenkov Telescope Array (CTA): Prospects for Fundamental Physics and Cosmology with Very-High-Energy Gamma Rays</b>	FENG, Qi	
[45] <b>Deep Learning Development and Deployment for Low-Latency Gravitational-Wave Astronomy</b>	BENOIT, William	
[53] <b>Gamma-Ray and AntiMatter Survey (GRAMS) for antimatter detection</b>	ZENG, Jiancheng	
[43] <b>The Cosmic-Ray Positron Excess: Status of the Pulsar Explanation</b>	BITTER, Olivia	
[41] <b>Improving DiHiggs sensitivity in the hadronic final state using machine learning</b>	SHELDON, Brian	

<b>[38] Studies of tau neutrino appearance at the DUNE Near Detector complex</b>	RAZAFINIME, Soamasina Herilala	
<b>[39] CUPID: a next-generation neutrinoless double beta decay experiment.</b>	TORRES, Jorge	
<b>[34] Studies of GaN-based avalanche diodes as a primary cell for a solid-state photomultiplier</b>	OTTE, Nepomuk	
<b>[27] Fast collider simulations with graph neural networks.</b>	KANSAL, Raghav	
<b>[26] PIP2-BD: Searches for new physics with a stopped-pion source at the Fermilab accelerator complex</b>	ZETTLEMOYER, Jacob	
<b>[33] The Trinity UHE Neutrino Observatory</b>	OTTE, Nepomuk	
<b>[25] Physics Community Needs, Tools, and Resources for Machine Learning</b>	KHODA, Elham E	
<b>[21] Neutrino self-interaction: boosting cosmic neutrinos with DSNB</b>	DAS, Anirban	
<b>[19] Sensitivity to Decays of Long-Lived Dark Photons at the ILC</b>	NOSLER, Laura	
<b>[17] Operational islands in JT gravity</b>	DE VUYST, Julian	
<b>[16] Single photon detectors for dark matter axion searches</b>	GHOSH, Sumita	
<b>[96] A3D3 Postbaccalaureate Fellowship Program</b>	DUARTE, Javier	