



# Brookhaven Forum 2021: Opening New Windows to the Universe (BF2021)

## Wednesday, 3 November 2021

### Parallel Session I (13:10 - 15:00)

time	[id] title	presenter
13:10	[19] Forward Physics Facility at LHC	KLING, Felix
13:10	[23] Dark Neutrons	RAJ, Nirmal
13:10	[24] Exotic Searches at LHCb	SANTOVETTI, Emanuele
13:10	[20] New Frontiers in Early-Universe Cosmology	IJJAS, Anna
13:10	[21] Stellar Probes of New Physics	MCDERMOTT, Samuel
13:10	[22] Direct Detection of the Cosmic Neutrino Background with PTOLEMY	TULLY, Christopher
13:30	[28] New Tau Neutrino Oscillation and Scattering Constraints on Unitarity Violation	GEHRLEIN, Julia
13:30	[29] Leptophilic New Physics	KIRK, Fiona
13:30	[30] Charm CP Violation	SCHACHT, Stefan
13:40	[25] Indirect Detection of Long-lived Particles Via a Less Simplified Dark Higgs Portal	JODLOWSKI, Krzysztof
13:40	[26] Interacting Dark Sector from Unimodular Gravity: Cosmological Perturbations with No Instability	DE CESARE, Marco
13:40	[27] Tidal Deformability of Massive Neutron Stars with Holographic Multiquark Cores	PINKANJANAOROD, Sitthichai
13:50	[36] Hot Topics at Belle II	ATMACAN, Hulya
13:50	[35] Light Particles with Baryon and Lepton Numbers	HEECK, Julian
13:50	[34] Matter Induced CP Violation in LBL Neutrino Oscillation Experiments	KUMAR, Manoj
14:00	[33] Direct Detection of Dark Asteroids	DAS, Anirban
14:00	[32] Fluctuations on Horizons	BANKS, Thomas
14:00	[31] Search for Long-lived Particles Decaying into Two Muons in Proton-proton Collisions at $\sqrt{s}=13\text{TeV}$ Using Data Collected with High Rate Triggers	ROUTRAY, Hardik
14:10	[42] Theoretical Aspects of Spin Hydrodynamics Framework	SINGH, Rajeev
14:10	[40] BSM Physics at Neutrino Experiments	SHOEMAKER, Ian
14:10	[41] Multi-TeV Signals of Baryogenesis in a Higgs Troika Model	SULLIVAN, Matthew
14:20	[37] Long-lived Bino at the LHC	IPEK, Seyda
14:20	[38] $f(Q,T)$ Gravity Models with Observational Constraints	BHATTACHARJEE, Snehasish
14:20	[39] Bounds from Gas-rich Galaxies on Dark Matter Decay and Annihilation	WANG, Zihui
14:30	[47] Electroweak Symmetry Non-restoration in UV-complete Models with New Fermions	NG, Yu Hang
14:30	[46] Heavy Neutral Leptons at Hodoscopic Detectors	HOSTERT, Matheus

14:30	[48] Recent Hidden Sector Searches at BABAR	SHUVE, Brian
14:40	[45] Milli-magnetic Monopole Dark Matter and the Survival of Galactic Magnetic Fields	GRAESSER, Michael
14:40	[43] Searches for Long-lived Particles and Dark Matter	MORINAIGA, Masahiro
14:40	[44] Precision Calculation of Inflation Correlators at One Loop	ZHONG, Yiming

# Thursday, 4 November 2021

## Parallel Session I (13:40 - 16:00)

time	[id] title	presenter
13:40	[82] Axiogenesis from $SU(2)_R$ Phase Transition	WANG, Ruoquan
13:40	[83] The Cosmological Constant with Emergent Gauge Symmetries	BASS, Steven
13:40	[84] New Aspects of Sterile Neutrino Dark Matter	ZHANG, Yue
13:40	[81] Prospects for Beyond the Standard Model Physics in Long Baseline Neutrino Experiments	BISHAI, Mary
13:40	[80] A No-Lose Theorem for Discovering the New Physics of $(g-2)$ at Muon Colliders	CURTIN, David
13:40	[79] Overview of Top Quark Results (ATLAS+CMS)	NARAYAN, Rohin
14:00	[87] Measurement of Energy-dependent Inclusive Muon Neutrino Charged Current Cross Section at MicroBooNE	GU, Wenqiang
14:00	[89] Towards a Model-independent Reconstruction Approach for Late-time Hubble Data	BERNARDO, Reginald
14:00	[96] Long Range Non-perturbative Effects in a $t$ -Channel Simplified Dark Matter Model	SENGUPTA, Dipan
14:00	[85] Recent Higgs Measurements (ATLAS+CMS)	DI GREGORIO, Giulia
14:00	[86] Measurement of $e^+e^- \rightarrow \pi^+\pi^- \gamma$ with ISR Events at BABAR & its Contribution to $(g-2)_\mu$	WILSON, Fergus
14:00	[88] Gravitational Wave Probes of Axion Kinaton	CO, Raymond
14:20	[95] A Symmetry of Cosmological Observables and a Hubble Constant as an Indicator of a Mirror World Dark Sector	CYR-RACINE, Francis-Yan
14:20	[90] Light Dark Matter Through Resonance Scanning	HOUTZ, Rachel
14:20	[94] An Analytic Treatment of Underdamped Axionic Blue Isocurvature Perturbations	CHUNG, Daniel
14:20	[93] Latest Results from Astrophysical Searches with the IceCube Observatory	SHARMA, Ankur
14:20	[92] Muon $g-2$ Anomaly & Neutrino Magnetic Moments	PADMANABHAN KOVILAKAM, Vishnu
14:20	[91] X+jets Measurements & Searches at CMS	CHOU, John Paul
14:40	[107] Swampland Conjectures & Single Field Inflation in General Cosmological Scenarios	TRIVEDI, Oem
14:40	[97] Di-Higgs Searches (Non-resonant) (ATLAS+CMS)	D'AMICO, Valerio
14:40	[99] Astrophysical Searches within IceCube	SUBHASH, Vedant
14:40	[100] Neff Constraints on Portal Coupling with Hidden Sectors	RALEGANKAR, Pranjal
14:40	[98] Lepton Anomalous Magnetic Moment with Singlet-Doublet Fermion Dark Matter in Scotogenic $U(1)_{L_\mu} - L_\tau$ Model	MAHAPATRA, Satyabrata
14:40	[102] Ultraheavy Dark Matter Search with Electron Microscopy of Geological Quartz	TANIN, Erwin
15:00	[108] Probing Leptophilic Dark at 1 TeV ILC with Effective Operators	KUNDU, Saumyen
15:00	[103] Search for Exotic Higgs Decay	HO LO, Kin

15:00	[104] Unified Framework for B Anomalies, muon $g-2$ , Neutrino Masses	THAPA, Anil
15:00	[105] Dimuons in Neutrino Telescopes: New Predictions & First Candidates in IceCube	ZHOU, Bei
15:00	[106] Neutrino as the Dark Force	ORLOFSKY, Nicholas
15:00	[101] IIB Matrix Model: Emergence of Spacetime & Matter	KLINKHAMER, Frans
15:20	[111] Gravitational Particle Production using Adiabatic Invariants	BASSO, Edward
15:20	[109] Stellar Neutrino	NARAYAN, Aakash