2021 Meeting of the Division of Particles and Fields of the American Physical Society (DPF21)

Monday, 12 July 2021

Dark Matter: DM 1D - Track D (14:30 - 16:00)

-Conveners: Ivan Esteban; Suho Kim; Hooman Davoudiasl

| time [id] title | presenter |
|---|---------------------|
| 14:30 [394] Global First of Direct Dark Matter Effective Field Theories with GAMBIT | CORNELL, Jonathan |
| 14:45 [330] Studying dark matter with MadDM: Lines and loops | Mr MASSARO, Daniele |
| 15:00 [15] Experimental signatures of a new dark matter WIMP | ALLEN, Roland |
| 15:15 [41] Testing freeze-in with \$Z'\$ bosons | GRAY, Taylor |
| 15:30 [299] Freezing In with Lepton Flavored Fermions | CHATTERJEE, Shiuli |
| 15:45 Break | |

Dark Matter: DM 1K - Track K (14:30 - 16:00)

-Conveners: Muti Wulansatiti; Zhengkang Zhang; Robert Group

| time | [id] title | presenter |
|-------|--|------------------|
| 14:30 | [223] Dark Matter Search Results from DAMIC at SNOLAB | PIERS, Alexander |
| 14:45 | [270] Backgrounds and Shielding for SuperCDMS SNOLAB | NELSON, Jack |
| 15:00 | [387] Improved Background Rate and Coincident Event Removal in SuperCDMS HVeV Run 3 | ARALIS, Taylor |
| 15:15 | [52] Diamond detector for dark matter direct detection | YU, To Chin |
| 15:30 | [309] HeRALD: Dark Matter Direct Detection with Superfluid 4He | PATEL, Pratyush |
| 15:45 | [360] Dark Matter Absorption via Electronic Excitations Revisited | TRICKLE, Tanner |

Dark Matter: DM 2D - Track D (16:15 - 17:45)

-Conveners: Doojin Kim; Purbita Rahman Prova; Bhaskar Dutta

| time [id] title | presenter |
|--|----------------------|
| 16:15 [81] Self-interacting Dark Matter with Scalar Dilepton Mediator | KAO, Chung |
| 16:30 [161] Resonant Self Interacting Dark Mesons from Hidden QCD | Dr TSAI, Yu-Dai |
| 16:45 [313] Continuum-Mediated Self-Interacting Dark Matter | CHAFFEY, Ian |
| 17:00 [247] Self-interacting dark matter from late decays and the H0 tension | JODLOWSKI, Krzysztof |
| 17:15 [145] Baryons and Dark Matter from Dark Phase Transitions | MCGEHEE, Robert |
| 17:30 Break | |

Dark Matter: DM 2K - Track K (16:15 - 17:45)

-Conveners: Muti Wulansatiti; Zhengkang Zhang; Robert Group

| time | [id] title | presenter |
|-------|---|--------------------------------------|
| 16:15 | [401] The XENONnT experiment | HIGUERA, Aaron |
| | [36] Progress toward building a pair of scintillating bubble chambers for WIMPs and reactor CEvNS | Dr COPPEJANS, Rocco |
| | [292] Dark Matter and Reactor CEvNS Physics Reach with SBC Liquid Argon Bubble Chambers | NEILSON, Russell NEILSON, Russell |
| 17:00 | [193] Superfluid EFT for sub-GeV dark matter detection | YOU, Yining |
| 17:15 | [371] Windchime: Gravitational Direct Detection of Dark Matter | Dr LI, Shengchao |
| 17:30 | Break | |

Tuesday, 13 July 2021

Dark Matter: DM 3D - Track D (14:30 - 16:00)

-Conveners: Caterina Doglioni; Zhengkang Zhang

| time | [id] title | presenter |
|-------|---|---------------------|
| 14:30 | [262] Latest axion search results from ADMX | NITTA, Tatsumi |
| 14:45 | [320] The CASPEr and SHAFT searches for ultralight axion-like dark matter | SUSHKOV, Alexander |
| | [374] Controlling relaxation of nuclear spin qubit ensembles for a more sensitive search for axion-like dark matter | ADAM, Janos |
| 15:15 | [27] THz Photon Source Testing for the BREAD Experiment | DONA, Kristin Marie |
| 15:30 | [50] Cosmological Simulations of Axion String Radiation | FOSTER, Joshua |
| 15:45 | Break | |

Dark Matter: DM 3K - Track K (14:30 - 16:00)

-Conveners: Barmak Shams Es Haghi; Bertrand Echenard

| time | [id] title | presenter |
|-------|---|--------------------|
| 14:30 | [7] The Light Dark Matter eXperiment, LDMX | DUTTA, Valentina |
| 14:45 | [245] The LDMX Trigger Scintillator system | Mr GOGATE, Niramay |
| 15:00 | [362] The Heavy Photon Search experiment: summary and recent developments for the 2019 Data Run | SPELLMAN, Alic |
| 15:15 | [290] Search for Accelerator-produced Dark Matter with the Coherent CAPTAIN Mills detector | DUNTON, Edward |
| 15:30 | [269] Using Underground Nuclear Accelerators in the Quest for Dark Matter | MOORE, Marianne |
| 15:45 | [304] g-2 Dark Sector Portal: U(1)_{L μ -L τ } Solution to Dark Matter | HAPITAS, Timothy |

Dark Matter: DM 4D - Track D (16:15 - 17:45)

-Conveners: Zhengkang Zhang; LianTao Wang

| time | [id] title | presenter |
|-------|---|----------------------------------|
| 16:15 | [390] A cosmological dark matter collider experiment | Prof. CYR-RACINE, Francis-Yan |
| 16:30 | [378] Gas-rich dwarf galaxies as powerful sub-GeV dark matter detectors | Dr WADEKAR, Digvijay |
| 16:45 | [219] Celestial-Body Focused Dark Matter Annihilation Throughout the Galaxy | MUKHOPADHYAY, payel |
| 17:00 | [235] Stellar Shocks From Dark Matter | ZHOU, Kevin |
| | [267] Improved Treatment of Dark Matter Capture in Neutron Stars: Leptonic and Baryonic Targets | VIRGATO, Michael |
| 17:30 | [268] Multi-component multiscatter capture of Dark Matter | LEVY, Caleb |

Wednesday, 14 July 2021

Dark Matter: DM 5D - Track D (14:30 - 16:00)

-Conveners: Joshua Foster; Hong Ma

| time | [id] title | presenter |
|-------|--|----------------------|
| 14:30 | [124] Dark matter and neutrino mass in the radiative seesaw model | KHAN, Najimuddin |
| | [47] Search for new particles in events with energetic jets and large missing transverse momentum in proton-proton collisions at sqrt(s) = 13 TeV | YUAN, Siqi |
| | [142] Search for Dark Matter from Baryon Number Violation Process in Proton-Proton Collisions at 13 TeV. | MUTHUMUNI, Samila |
| 15:15 | [83] A tri-muon trigger for pair-production of dark photons with the CMS Experiment at the HL-LHC | KARCHIN, Paul Edmund |
| | [137] Search for dark matter in events with missing transverse momentum and a Higgs boson decaying to a photon pair in pp collisions at sqrt(s) = 13 TeV with the ATLAS detector | QIAN, Yan |
| | [188] Search for Higgs boson decays to invisible final states produced in vector boson fusion (+photon) with the ATLAS detector | HONG, Tae Min |

Dark Matter: DM 6D - Track D (16:15 - 17:45)

-Conveners: Joshua Foster; maria monzani

| time | [id] title | presenter |
|-------|---|------------------------|
| 16:15 | [278] Effects of Primordial Black Holes on Dark Matter Models | SHAMS ES HAGHI, Barmak |
| 16:30 | [279] Asymmetric Reheating by Primordial Black Holes | SHAMS ES HAGHI, Barmak |
| 16:45 | [236] Low-mass primordial black holes as the dark matter candidate | LAHA, Ranjan |
| | [19] Strong constraints on thermal relic dark matter from Fermi-LAT observations of the Galactic Center | KEELEY, Ryan |
| | [231] The Cherenkov Telescope Array: probing fundamental Physics with the next-generation observatory for very-high-energy gamma rays | CAPASSO, Massimo |
| 17:30 | [328] A search for dark matter using sub- PeV γ -rays observed by Tibet AS γ | MAITY, Tarak Nath |