

Second US Muon Collider Collaboration Meeting

Thursday, August 7, 2025

Parallels: Accelerator - KPTC 120 (2:00 PM - 3:30 PM)

time	[id] title	presenter
2:00 PM	[13] Progress on the HFOFO snake channel for 6D Muon Cooling	RIGGALL, Caroline
2:20 PM	[14] Progress on TeV acceleration for the Fermilab Muon Collider	CAPOBIANCO-HOGAN, Kyle
2:40 PM	[15] Proton Driver for the Demonstrator and Muon Collider	HOOVER, Austin
3:00 PM	[17] Progress on High Power Targetry	Dr YONEHARA, Katsuya
3:20 PM	[18] Discussion	

Parallels: Detector Performance - KPTC 106 (2:00 PM - 3:30 PM)

-Conveners: Sarah Demers; Nadia Pastrone; Lawrence Lee

time	[id] title	presenter
2:00 PM	[65] Pandora Overview and Special Considerations for $\mu\mu$ Environment	PENN, Gregory PENN, Gregory
2:18 PM	[66] Calibration Challenges in the MAIA Calorimeters	POWERS, Rose
2:36 PM	[67] ECal BIB Mitigation Studies	DERVAN, John
2:54 PM	[69] Trigger and DAQ Rate Considerations	RASTOGI, Angira
3:12 PM	[68] Topical Discussion: Detector Considerations for Neutrinos at $\sqrt{s} \approx \pi s$	HOSTERT, Matheus HOSTERT, Matheus

Parallels: Theory - MCP 201 (2:00 PM - 3:30 PM)

-Conveners: Andre de Gouvea

time	[id] title	presenter
2:00 PM	[73] Towards realistic predictions for weak bosons as partons of the muon ($15'+3'$)	RUIZ, Richard
2:18 PM	[74] Guaranteed Deliverables at the Muon Collider ($15'+3'$)	CAPDEVILLA, Rodolfo CAPDEVILLA, Rodolfo
2:36 PM	[75] Precision Physics at the Muon Collider	MA, Yang
2:54 PM	[76] Colored Particle Production at High-Energy Muon Colliders	WU, Arthur
3:12 PM	[77] Probing Anomalous Quartic Gauge Couplings at the Muon Collider ($15'+3'$)	GUO, Yu-Chen

Friday, August 8, 2025

Parallels: Accelerator (11:00 AM - 12:30 PM)

time	[id] title	presenter
11:00 AM	[19] Muon Collider Magnet Development in Europe	Dr BOTTURA, Luca
11:20 AM	[20] Muon Collider Magnet Development in the USA	Dr GUPTA, Ramesh
11:40 AM	[21] Recent Developments in RF Cavities with Beam Windows for the Future Muon Collider Ionization Cooling Channels	MERENICH, Dillon
12:00 PM	[22] Multi-physics approach in the design and optimization of muon cooling cavity	Dr LI, Zenghai
12:20 PM	[23] Discussion	

Parallels: Detectors and Instrumentation R&D (11:00 AM - 12:30 PM)

-Conveners: Jennifer Ott; Maurice Garcia-Sciveres; Simone Mazza

time	[id] title	presenter
11:00 AM	[89] Introduction and 4D tracking	OTT, Jennifer OTT, Jennifer
11:18 AM	[88] Status of 4D tracking detectors and readout	APREYSAN, Artur
11:36 AM	[90] Forward Muon Detection and Luminosity Measurement	ACOSTA, Darin
11:54 AM	[91] Dual readout in homogenous inorganic scintillators for precision calorimetry	CUMMINGS, Grace
12:12 PM	[94] Achieving Sub-Picosecond Clock Synchronization for Accelerators and Detectors	Dr SARADHY, Rohith

Parallels: Theory (11:00 AM - 12:30 PM)

-Conveners: Matheus Hostert

time	[id] title	presenter
11:00 AM	[79] Fermion Portal Dark Matter at a Muon Collider (15'+3')	ASADI, Pouya ASADI, Pouya
11:18 AM	[82] Heavy QCD axion at a 3/10 TeV Muon Collider (15'+3')	LI, Peiran
11:36 AM	[81] Testing Lepton Flavor at High-Energy Muon Collider (15'+3')	HOMILLER, Samuel
11:54 AM	[80] Electroweak Symmetry Restoration at High-Energy Muon Colliders (15'+3')	MAHBUB, Ishman

Parallels: Accelerator (2:00 PM - 3:30 PM)

time	[id] title	presenter
2:00 PM	[28] Demonstrator Overview	STRATAKIS, Diktys
2:20 PM	[93] New Test Area with SC Solenoid at SLAC	Dr SNIVELY, Emma
2:40 PM	[29] Discussion	

Parallels: Computing + AI/ML (2:00 PM - 3:30 PM)**-Conveners: Walter Hopkins; Mark Neubauer; Kevin Pedro; Walter Hopkins**

time	[id] title	presenter
2:00 PM	[8] How to simulate a muon collider detector	ROSSER, Benjamin
2:18 PM	[9] Tracking software and ML tracking	BALA GARG, Rocky
2:36 PM	[10] AI/ML opportunities	GANDRAKOTA, Abhijith
2:54 PM	[11] Computing resources and challenges	PEDRO, Kevin
3:12 PM	[12] Open discussion	

Parallels: Neutrino Theory + Experiment (2:00 PM - 3:30 PM)**-Conveners: Matheus Hostert**

time	[id] title	presenter
2:00 PM	[83] Electroweak Observables from TeV Muon Collider Neutrino Beams (15'+3')	THOMPSON, Adrian THOMPSON, Adrian
2:18 PM	[84] A Modern View of a Neutrino Factory (15'+3')	GEHRLEIN, Julia
2:36 PM	[85] The Neutrino Kaleidoscope: Searches for Non-Standard Neutrino Oscillations at Neutrino Telescopes with a TeV Accelerator Source (15'+3')	PUTNAM, Gray KAMP, Nicholas
2:54 PM	[78] Light Axion Production at Future Muon Collider (15'+3')	XIE, Keping