

Muon Collider Physics and Detector workshop

Report of Contributions

Contribution ID: 1

Type: **not specified**

Fermilab Wine and Cheese Seminar: Physics at the Muon Collider

Friday, December 16, 2022 4:00 PM (1 hour)

Presenter: PAGAN GRISO, Simone (Lawrence Berkeley National Laboratory)

Contribution ID: 2

Type: **not specified**

Welcome from the Fermilab's Future Colliders Group

Thursday, December 15, 2022 9:05 AM (20 minutes)

Presenter: BHAT, Pushpalatha (Fermilab)

Session Classification: Introduction

Contribution ID: 3

Type: **not specified**

IMCC Status and Plans

Thursday, December 15, 2022 9:25 AM (20 minutes)

Presenter: PASTRONE, Nadia (INFN-Torino)

Session Classification: Introduction

Contribution ID: 4

Type: **not specified**

Muon Collider Forum Summary

Thursday, December 15, 2022 9:45 AM (20 minutes)

Presenter: BLACK, Kevin (University of Wisconsin, Madison)

Session Classification: Introduction

Contribution ID: 5

Type: **not specified**

Discussion

Thursday, December 15, 2022 10:05 AM (25 minutes)

Session Classification: Introduction

Contribution ID: 6

Type: **not specified**

Accelerator R&D needs and near term priorities

Thursday, December 15, 2022 11:00 AM (25 minutes)

Presenter: SHILTSEV, Vladimir (FNAL)

Session Classification: Introduction

Contribution ID: 7

Type: **not specified**

Interplay between Accelerator and Detector design

Thursday, December 15, 2022 11:25 AM (25 minutes)

Presenter: LUCCHESI, Donatella (INFN-Padova)

Session Classification: Introduction

Contribution ID: 8

Type: **not specified**

Discussion

Thursday, December 15, 2022 11:50 AM (20 minutes)

Session Classification: Introduction

Contribution ID: 9

Type: **not specified**

Overview of FullSim Framework

Friday, December 16, 2022 9:00 AM (25 minutes)

Presenter: BARTOSIK, Nazar (INFN Torino)

Session Classification: Simulation Framework

Contribution ID: **10**

Type: **not specified**

Framework to do : from 3 to 10 TeV

Friday, December 16, 2022 9:25 AM (25 minutes)

Presenter: MELONI, Federico (Deutsches Elektronen-Synchrotron)

Session Classification: Simulation Framework

Contribution ID: **11**

Type: **not specified**

Discussion

Friday, December 16, 2022 10:15 AM (15 minutes)

Session Classification: Simulation Framework

Contribution ID: 12

Type: **not specified**

Pheno Requirements

Friday, December 16, 2022 11:00 AM (25 minutes)

Presenter: LIU, Zhen (University of Minnesota)

Session Classification: Detectors

Contribution ID: 13

Type: **not specified**

Detector needs from first principles

Friday, December 16, 2022 11:25 AM (25 minutes)

Presenter: HOLMES, Tova (University of Tennessee)

Session Classification: Detectors

Contribution ID: 14

Type: **not specified**

Calorimeter needs from first principles

Session Classification: Detectors

Contribution ID: 15

Type: **not specified**

Muon needs from first principles

Session Classification: Detectors

Contribution ID: **16**

Type: **not specified**

FastSim with Delphes

Session Classification: Detectors

Contribution ID: 17

Type: **not specified**

Auxiliary Experiments

Session Classification: Detectors

Contribution ID: **18**

Type: **not specified**

Next steps for the detector

Session Classification: Detectors

Contribution ID: **19**

Type: **not specified**

Discussion

Session Classification: Detectors

Contribution ID: **20**

Type: **not specified**

Discussion

Friday, December 16, 2022 11:50 AM (10 minutes)

Session Classification: Detectors

Contribution ID: 21

Type: **not specified**

Muon-Ion Collider Update

Session Classification: Detectors

Contribution ID: 22

Type: **not specified**

FastSim with Delphes

Friday, December 16, 2022 9:50 AM (25 minutes)

Presenter: CASARSA, Massimo (INFN-Trieste)

Session Classification: Simulation Framework

Contribution ID: 23

Type: **not specified**

Beam Dump Experiments

Friday, December 16, 2022 2:00 PM (20 minutes)

Presenter: CESAROTTI, Cari (MIT)

Session Classification: Synergies

Contribution ID: 24

Type: **not specified**

Charged Lepton Flavor Violation Experiments

Friday, December 16, 2022 1:20 PM (20 minutes)

Presenter: BERNSTEIN, Robert (Fermilab)

Session Classification: Synergies

Contribution ID: 25

Type: **not specified**

Discussion

Session Classification: Synergies

Contribution ID: 26

Type: **not specified**

Why we need the energy frontier

Thursday, December 15, 2022 1:30 PM (30 minutes)

Presenter: CRAIG, Nathaniel (UC Santa Barbara)

Session Classification: Physics

Contribution ID: 27

Type: **not specified**

Electroweak Symmetry Breaking and physics opportunities

Thursday, December 15, 2022 2:00 PM (30 minutes)

Presenter: LOW, Ian (Argonne/Northwestern)

Session Classification: Physics

Contribution ID: 28

Type: **not specified**

Single Higgs Precision at a Muon Collider

Thursday, December 15, 2022 2:30 PM (25 minutes)

Presenter: FORSLUND, Matthew (Stony Brook University)

Session Classification: Physics

Contribution ID: 29

Type: **not specified**

Dark Matter at a Muon Collider

Thursday, December 15, 2022 3:30 PM (25 minutes)

Presenter: WANG, Liantao (University of Chicago)

Session Classification: Physics

Contribution ID: **30**

Type: **not specified**

Leptoquarks

Thursday, December 15, 2022 3:55 PM (25 minutes)

Presenter: CAPDEVILLA, Rodolfo (Perimeter Institute and University of Toronto)

Session Classification: Physics

Contribution ID: **31**

Type: **not specified**

g-2 and Muon Collider

Thursday, December 15, 2022 4:20 PM (25 minutes)

Presenter: KRNJAIC, Gordan (Fermilab)

Session Classification: Physics

Contribution ID: **32**

Type: **not specified**

HNL

Thursday, December 15, 2022 4:45 PM (25 minutes)

Presenter: LYU, Kunfeng (University of Minnesota)

Session Classification: Physics

Contribution ID: **33**

Type: **not specified**

MuIC

Friday, December 16, 2022 1:00 PM (20 minutes)

Presenter: ACOSTA, Darin (Rice University)

Session Classification: Synergies

Contribution ID: **34**

Type: **not specified**

Neutrinos

Friday, December 16, 2022 1:40 PM (20 minutes)

Presenter: YONEHARA, Katsuya (Fermilab)

Session Classification: Synergies

Contribution ID: 35

Type: **not specified**

Discussion

Thursday, December 15, 2022 5:10 PM (20 minutes)

Session Classification: Physics

Contribution ID: 36

Type: **not specified**

Fermilab Colloquium: Landscape of Particle Accelerators and Snowmass'21 Planning for Future

Wednesday, December 14, 2022 4:00 PM (1 hour)

Presenter: SHILTSEV, Vladimir (FNAL)

Contribution ID: 37

Type: **not specified**

Workshop Photo

Session Classification: Introduction

Contribution ID: **38**

Type: **not specified**

Workshop Logistics

Thursday, December 15, 2022 9:00 AM (5 minutes)

Presenter: JINDARIANI, Sergo (Fermilab)

Session Classification: Introduction

Contribution ID: 39

Type: **not specified**

Workshop Reception

Thursday, December 15, 2022 6:00 PM (1h 30m)