

PITT PACC Workshop: Muon collider physics

Report of Contributions

Contribution ID: 48

Type: **not specified**

Muon collider is cool

Presenter: ARKANI-HAMED, Nima (IAS)

Contribution ID: 49

Type: **not specified**

Muon collider is cool

Monday 30 November 2020 11:00 (1 hour)

Presenter: ARKANI-HAMED, Nima (IAS)

Session Classification: Why a muon collider

Contribution ID: 50

Type: **not specified**

A High energy muon collider

Presenter: PASTRONE, Nadia (Universita e INFN Torino (IT))

Contribution ID: 51

Type: **not specified**

Muon collider: are we ready?

Monday 30 November 2020 12:00 (1 hour)

Presenter: PASTRONE, Nadia (Universita e INFN Torino (IT))

Session Classification: Why a muon collider

Contribution ID: 52

Type: **not specified**

Why building a muon collider

Monday 30 November 2020 13:30 (1 hour)

Presenter: WULZER, Andrea (CERN and EPFL)

Session Classification: Machine general / SM

Contribution ID: 53

Type: **not specified**

Standard Model physics at high-energy muon colliders

Monday 30 November 2020 15:00 (1 hour)

Presenter: XIE, Keping (University of Pittsburgh)

Session Classification: Machine general / SM

Contribution ID: 54

Type: **not specified**

Current status of muon collider program

Monday 30 November 2020 13:00 (30 minutes)

Presenter: SCHULTE, Daniel (CERN)

Session Classification: Machine general / SM

Contribution ID: 55

Type: **not specified**

A Guaranteed Discovery at Future Muon Colliders

Wednesday 2 December 2020 14:00 (30 minutes)

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

Session Classification: Neutrinos, leptons and DM

Contribution ID: 56

Type: **not specified**

Muon Collider against the Backdrop of Fundamental Physics

Tuesday 1 December 2020 10:00 (1 hour)

Presenter: SUNDRUM, Raman

Session Classification: Muon Collider

Contribution ID: 57

Type: **not specified**

MAP Feasibility Studies as the Basis for Future Capabilities

Tuesday 1 December 2020 11:00 (30 minutes)

Presenter: PALMER, Mark (BNL)

Session Classification: Muon Collider

Contribution ID: 58

Type: **not specified**

Physics at Higgs factories

Tuesday 1 December 2020 13:00 (1 hour)

Presenter: LIU, Zhen (U of Maryland)

Session Classification: Higgs

Contribution ID: 59

Type: **not specified**

Dark Matter

Presenter: WANG, Liantao (University of Chicago (US))

Session Classification: Higgs

Contribution ID: **60**

Type: **not specified**

Higgs at high energy muon collider

Tuesday 1 December 2020 14:00 (30 minutes)

Presenter: WANG, Xing (UC San Diego)

Session Classification: Higgs

Contribution ID: 61

Type: **not specified**

2HDM at a high-energy muon collider

Tuesday 1 December 2020 15:00 (30 minutes)

Presenter: SU, Shufang (University of Arizona)

Session Classification: Higgs

Contribution ID: 62

Type: **not specified**

Muon collider detector performances from full simulation to R&D

Wednesday 2 December 2020 10:00 (1 hour)

Presenters: LUCCHESI, Donatella (Universita e INFN, Padova (IT)); JINDARIANI, Sergo (Fermi National Accelerator Lab. (US))

Session Classification: Detector and Simulation

Contribution ID: 63

Type: **not specified**

Simulations for muon colliders

Wednesday 2 December 2020 11:00 (30 minutes)

Presenter: SELVAGGI, Michele (CERN)

Session Classification: Detector and Simulation

Contribution ID: 65

Type: **not specified**

Neutrino physics at the neutrino factory

Wednesday 2 December 2020 13:00 (1 hour)

Presenter: HUBER, Patrick

Session Classification: Neutrinos, leptons and DM

Contribution ID: **67**

Type: **not specified**

BSM2

Session Classification: Neutrinos, leptons and DM

Contribution ID: 68

Type: **not specified**

Composite resonances at a multi-TeV muon collider

Tuesday 1 December 2020 15:30 (30 minutes)

Presenter: XIE, Ke-Pan (Seoul National University)

Session Classification: Higgs

Contribution ID: 69

Type: **not specified**

Measuring the quartic Higgs self-coupling at a multi-TeV muon collider

Tuesday 1 December 2020 14:30 (30 minutes)

Presenter: CHIESA, Mauro (CNRS LAPTh, Annecy)

Session Classification: Higgs

Contribution ID: 70

Type: **not specified**

Complementary Probes of Lepton Flavor at a Muon Collider

Wednesday 2 December 2020 14:30 (30 minutes)

Presenter: HOMILLER, Samuel (Harvard)

Session Classification: Neutrinos, leptons and DM

Contribution ID: 71

Type: **not specified**

WIMP DM

Wednesday 2 December 2020 15:00 (1 hour)

Presenter: WANG, Liantao (University of Chicago (US))

Session Classification: Neutrinos, leptons and DM

Contribution ID: 72

Type: **not specified**

Theoretical predictions for a muon collider

Monday 30 November 2020 14:30 (30 minutes)

Presenter: MALTONI, Fabio (Universite Catholique de Louvain (UCL) (BE) and Università di Bologna)

Session Classification: Machine general / SM

Contribution ID: 73

Type: **not specified**

Multi-boson production and the muon Yukawa coupling

Wednesday 2 December 2020 11:30 (30 minutes)

Presenter: KILLIAN, Wolfgang (University of Siegen)

Session Classification: Detector and Simulation

Contribution ID: 74

Type: **not specified**

TBA

Presenter: JINDARIANI, Sergo (Fermi National Accelerator Lab. (US))

Session Classification: Detector and Simulation

Contribution ID: 75

Type: **not specified**

Overview of Ionization Cooling for a Muon Collider

Tuesday 1 December 2020 11:30 (15 minutes)

Presenter: STRATAKIS, Diktys

Session Classification: Muon Collider

Contribution ID: 76

Type: **not specified**

Q&A

Tuesday 1 December 2020 11:45 (30 minutes)

Session Classification: Muon Collider