2nd Muon Community Meeting

Report of Contributions

Contribution ID: 127 Type: not specified

Overview of target baseline

Monday 12 July 2021 16:10 (20 minutes)

Presenter: MCDONALD, Kirk (Princeton University)

Session Classification: MPC (Muon Production and Cooling)

Contribution ID: 128 Type: not specified

Test facility - target chamber and chicane layout

Monday 12 July 2021 15:00 (20 minutes)

Presenter: FRANQUEIRA XIMENES, Rui (CERN)

Session Classification: MPC (Muon Production and Cooling)

Contribution ID: 129 Type: not specified

Pion yield simulations

Monday 12 July 2021 16:30 (20 minutes)

Presenter: BACK, John James (University of Warwick (GB))

Session Classification: MPC (Muon Production and Cooling)

Contribution ID: 130 Type: not specified

Target Test facility at ESS

Monday 12 July 2021 14:30 (20 minutes)

Presenter: EKELOF, Tord Johan Carl (Uppsala University (SE))

Session Classification: MPC (Muon Production and Cooling)

Horn options

Contribution ID: 131 Type: not specified

Horn options

Monday 12 July 2021 16:50 (20 minutes)

Presenter: YONEHARA, Katsuya (Fermilab)

Session Classification: MPC (Muon Production and Cooling)

Contribution ID: 132 Type: not specified

Test facility - transfer line from PS

Monday 12 July 2021 15:20 (20 minutes)

Presenter: BRACCO, Chiara (CERN)

Session Classification: MPC (Muon Production and Cooling)

Break

Contribution ID: 133 Type: not specified

Break

Monday 12 July 2021 17:10 (20 minutes)

Session Classification: MPC (Muon Production and Cooling)

Contribution ID: 134 Type: not specified

Cooling baseline

Monday 12 July 2021 17:30 (20 minutes)

Presenter: STRATAKIS, Diktys (Fermilab)

Session Classification: MPC (Muon Production and Cooling)

Contribution ID: 135 Type: not specified

Review of final cooling options

Monday 12 July 2021 18:10 (20 minutes)

Session Classification: MPC (Muon Production and Cooling)

Contribution ID: 136 Type: not specified

Front end and chicane

Monday 12 July 2021 17:50 (20 minutes)

Presenter: SNOPOK, Pavel (IIT/Fermilab)

Session Classification: MPC (Muon Production and Cooling)

Contribution ID: 137 Type: not specified

Engineering integration

Session Classification: MPC (Muon Production and Cooling)

Contribution ID: 138 Type: not specified

Test facility - collimation and cooling

Monday 12 July 2021 15:40 (20 minutes)

Presenter: ROGERS, Chris (STFC)

Session Classification: MPC (Muon Production and Cooling)

Discussion

Contribution ID: 139 Type: not specified

Discussion

Monday 12 July 2021 18:30 (30 minutes)

Session Classification: MPC (Muon Production and Cooling)

Contribution ID: 140 Type: not specified

Discussion on SRF R&D work packages

Monday 12 July 2021 14:30 (1h 30m)

Presenters: YAMAMOTO, Akira (High Energy Accelerator Research Organization (JP)); YAMAMOTO,

Akira (High Energy Accelerator Research Organization (JP))

Session Classification: RF (Radio-Frequency)

Contribution ID: 141 Type: not specified

Discussion on NRF R&D work packages

Monday 12 July 2021 16:30 (1h 30m)

Presenter: LI, Derun (LBNL)

Session Classification: RF (Radio-Frequency)

Contribution ID: 142 Type: not specified

RF Summary

Tuesday 13 July 2021 14:00 (15 minutes)

Presenters: YAMAMOTO, Akira (High Energy Accelerator Research Organization (JP)); YAMAMOTO, Akira (High Energy Accelerator Research Organization (JP)); GRUDIEV, Alexej (CERN); LI, Derun (LBNL); DELAHAYE, Jean-Pierre

Session Classification: Plenary session (in same zoom room)

Contribution ID: 143 Type: not specified

Magnets Summary

Tuesday 13 July 2021 14:15 (15 minutes)

Presenters: ZLOBIN, Alexander (Fermilab); BARZI, Emanuela (Fermilab); QUETTIER, Lionel; PRESTE-

MON, Soren; OGITSU, Toru; BARZI, emanuela (Fermilab)

Session Classification: Plenary session (in same zoom room)

Contribution ID: 144 Type: not specified

High Energy Complex Summary

Tuesday 13 July 2021 14:30 (15 minutes)

Presenters: FAUS-GOLFE, Angeles (IJClab IN2P3 CNRS-Université Paris-Saclay (FR)); CHANCE, Antoine (CEA Irfu); CARLI, Christian (CERN); GIANFELICE-WENDT, Eliana; BERG, J. Scott (Brookhaven National Laboratory); BOGACZ, S. Alex (Jefferson Lab); MACHIDA, Shinji (STFC/RAL)

Session Classification: Plenary session (in same zoom room)

Contribution ID: 145 Type: not specified

Muon Production and Cooling Summary

Tuesday 13 July 2021 16:45 (15 minutes)

Presenters: SATO, Akira (Osaka University); DENSHAM, Chris (STFC Rutherford Appleton Laboratory); ROGERS, Chris (STFC); STRATAKIS, Diktys (Fermilab); YONEHARA, Katsuya (Fermilab); CALVIANI, Marco (CERN)

Session Classification: Plenary session (in same zoom room)

Contribution ID: 146 Type: not specified

Proton Complex

Tuesday 13 July 2021 15:00 (15 minutes)

Presenters: GERIGK, Frank (CERN); BARTOSIK, Hannes (CERN); MILAS, Natalia (P); GILARDONI,

Simone (CERN)

Session Classification: Plenary session (in same zoom room)

Contribution ID: 147 Type: not specified

Beam Dynamics Summary

Tuesday 13 July 2021 16:15 (15 minutes)

Presenters: METRAL, Elias (CERN); RYNE, Robert; RAUBENHEIMER, Tor (SLAC); RAUBEN-

HEIMER, Tor (SLAC National Accelerator Laboratory (US))

Session Classification: Plenary session (in same zoom room)

Contribution ID: 148 Type: not specified

Radiation Protection Summary

Tuesday 13 July 2021 16:30 (15 minutes)

Presenter: AHDIDA, Claudia

Session Classification: Plenary session (in same zoom room)

Contribution ID: 149 Type: not specified

Parameters, Power and Cost Summary

Session Classification: Plenary session (in same zoom room)

Contribution ID: 150 Type: not specified

Machine Detector Interface Summary

Tuesday 13 July 2021 17:00 (15 minutes)

Presenters: LECHNER, Anton (CERN); CARLI, Christian (CERN); LUCCHESI, Donatella; LUCCHESI, Donatella (Universita e INFN, Padova (IT)); PASTRONE, Nadia (Universita e INFN Torino (IT)); MOKHOV, Nikolai (Fermi National Accelerator Lab. (US)); JINDARIANI, Sergo (Fermi National Accelerator Lab. (US))

Session Classification: Plenary session (in same zoom room)

Contribution ID: 151 Type: not specified

Synergy Summary

Tuesday 13 July 2021 17:15 (15 minutes)

Presenters: LONG, Kenneth (CERN); LONG, Kenneth Richard (Imperial College (GB)); SHIMO-

MURA, Koichiro (KEK); RUBER, Roger (Uppsala University (SE))

Session Classification: Plenary session (in same zoom room)

Test facility

Contribution ID: 152 Type: not specified

Test facility

Tuesday 13 July 2021 14:45 (15 minutes)

Presenters: BROSS, Alan (Fermilab); LOSITO, Roberto (CERN); EKELOF, Tord Johan Carl (Uppsala

University (SE))

Session Classification: Plenary session (in same zoom room)

Discussion

Contribution ID: 153 Type: not specified

Discussion

Tuesday 13 July 2021 17:30 (30 minutes)

Session Classification: Plenary session (in same zoom room)

Discussion

Contribution ID: 154 Type: not specified

Discussion

Tuesday 13 July 2021 15:15 (30 minutes)

Session Classification: Plenary session (in same zoom room)

Contribution ID: 155 Type: not specified

Update on the LDG process

Monday 12 July 2021 14:00 (25 minutes)

Presenter: SCHULTE, Daniel (CERN)

Session Classification: Plenary session (in same zoom room)

Contribution ID: 156 Type: not specified

Discussion of target test facility

Monday 12 July 2021 16:00 (10 minutes)

Session Classification: MPC (Muon Production and Cooling)

Contribution ID: 157 Type: not specified

Test Facility - possible time lines

Monday 12 July 2021 14:50 (10 minutes)

Presenter: LOSITO, Roberto (CERN)

Session Classification: MPC (Muon Production and Cooling)

Contribution ID: 158 Type: not specified

Summary of the Design Study

Wednesday 14 July 2021 14:00 (30 minutes)

Presenter: SCHULTE, Daniel (CERN)

Session Classification: Plenary session (in same zoom room)

Contribution ID: 159 Type: not specified

Horizon Europe planning

Wednesday 14 July 2021 14:30 (30 minutes)

Presenters: SCHULTE, Daniel (CERN); LOSITO, Roberto (CERN)

Session Classification: Plenary session (in same zoom room)

Contribution ID: 160 Type: not specified

Test facility work package plan

Wednesday 14 July 2021 15:00 (45 minutes)

Presenters: CALVIANI, Marco (CERN); LOSITO, Roberto (CERN); EKELOF, Tord Johan Carl (Up-

psala University (SE))

Session Classification: Plenary session (in same zoom room)

Contribution ID: 161 Type: not specified

Hardware work package plan

Wednesday 14 July 2021 16:15 (45 minutes)

Presenters: GRUDIEV, Alexej (CERN); LEBRUN, Philippe (European Scientific Institute (FR)); OG-

ITSU, Toru

Session Classification: Plenary session (in same zoom room)

Contribution ID: 162 Type: not specified

Conceptual design work package plan

Wednesday 14 July 2021 17:00 (45 minutes)

Presenters: FAUS-GOLFE, Angeles (IJClab IN2P3 CNRS-Université Paris-Saclay (FR)); FAUS-GOLFE, Angeles (Instituto de Fisica Corpuscular (IFIC) UV-CSIC); CHANCE, Antoine (CEA Irfu); ROGERS, Chris (STFC); CARLI, Christian (CERN); GILARDONI, Simone (CERN)

Session Classification: Plenary session (in same zoom room)

Discussion

Contribution ID: 163 Type: not specified

Discussion

Wednesday 14 July 2021 17:45 (15 minutes)

Session Classification: Plenary session (in same zoom room)

2nd Muon Com $\,\cdots\,$ / Report of Contributions

Introduction

Contribution ID: 164 Type: not specified

Introduction

Presenter: Dr GILARDONI, Simone (CERN)

Contribution ID: 165 Type: not specified

Synergies in high power and muon beam R&D in China

Monday 12 July 2021 14:30 (20 minutes)

Presenter: TANG, Jingyu (Institute of High Energy Physics, CAS)

Session Classification: Synergy

Contribution ID: 166 Type: not specified

The COMET and PRISM programmes and synergies with muon collider programme

Monday 12 July 2021 14:50 (20 minutes)

Presenter: SATO, Akira (Osaka University)

Session Classification: Synergy

Contribution ID: 167 Type: not specified

Target studies for COMET and in the J-PARC Materials and Life Science Facility

Monday 12 July 2021 15:10 (20 minutes)

Presenter: Prof. MAKIMURA, Shunsake (KEK)

Session Classification: Synergy

Contribution ID: 168 Type: not specified

The potential to deliver high quality muon beams could enhance the capabilities of muon sources such as those at PSI, ISIS and J-PARC.

Monday 12 July 2021 15:30 (20 minutes)

Presenter: Prof. SHIMOMURA, Koichiro (KEK)

Session Classification: Synergy

Contribution ID: 169 Type: not specified

Synergies in the Korean high-power accelerator programme (TBC)

Monday 12 July 2021 15:50 (20 minutes)

Presenter: Prof. LEE, Juhahn (Rare Isotope Science Project)

Session Classification: Synergy

Contribution ID: 170 Type: not specified

Schedule Considerations

Monday 12 July 2021 14:30 (20 minutes)

Presenter: SCHULTE, Daniel (CERN)

Session Classification: PPC (Parameters, Power and Cost)

Contribution ID: 171 Type: not specified

Discussion on Technology Drivers

Monday 12 July 2021 15:10 (20 minutes)

Presenter: LEBRUN, Philippe

Session Classification: PPC (Parameters, Power and Cost)

Contribution ID: 172 Type: not specified

Cost Considerations

Monday 12 July 2021 15:30 (20 minutes)

Presenter: SHILTSEV, Vladimir (Fermilab)

Session Classification: PPC (Parameters, Power and Cost)

Contribution ID: 173 Type: not specified

Cost Drivers

Monday 12 July 2021 15:50 (20 minutes)

Session Classification: PPC (Parameters, Power and Cost)

Contribution ID: 174 Type: not specified

Common discussion on tasks and needed resources

Monday 12 July 2021 14:30 (1 hour)

Presenters: LECHNER, Anton (CERN); CARLI, Christian (CERN); LUCCHESI, Donatella; PAS-

TRONE, Nadia (INFN Torino (IT)); MOKHOV, Nikolai (Fermi National Accelerator Lab. (US))

Session Classification: MDI (Machine Detector Interface)

Contribution ID: 175 Type: not specified

Joint session with High Energy Complex

Monday 12 July 2021 15:30 (1 hour)

Session Classification: MDI (Machine Detector Interface)

Contribution ID: 176 Type: not specified

Joint session with Radiation Protection on Neutrino Radiation Mitigation

Monday 12 July 2021 16:30 (1 hour)

Session Classification: MDI (Machine Detector Interface)

Contribution ID: 177 Type: not specified

Final summary

Monday 12 July 2021 17:30 (30 minutes)

Session Classification: MDI (Machine Detector Interface)

Contribution ID: 178 Type: not specified

Joint session with High Energy Complex (HEC) in the BD room

Monday 12 July 2021 14:30 (1 hour)

Session Classification: BD (Beam Dynamics)

Contribution ID: 179 Type: not specified

Joint session with Beam Dynamics (BD) in the BD room

Monday 12 July 2021 14:30 (1 hour)

Session Classification: HEC (High-Energy Complex)

Contribution ID: 180 Type: not specified

Plans for a refined dose model

Monday 12 July 2021 16:30 (30 minutes)

Presenter: AHDIDA, Claudia

Session Classification: RP (Radiation Protection) joint session w MDI and HEC

Contribution ID: 181 Type: not specified

First considerations for a surface map

Monday 12 July 2021 17:00 (30 minutes)

Presenter: ROBERT, Youri (CERN)

Session Classification: RP (Radiation Protection) joint session w MDI and HEC

Discussion

Contribution ID: 182 Type: not specified

Discussion

Monday 12 July 2021 17:30 (30 minutes)

Session Classification: RP (Radiation Protection) joint session w MDI and HEC

Contribution ID: 183 Type: not specified

An Overview of the MC Technology Drivers

Monday 12 July 2021 14:50 (20 minutes)

Presenter: PALMER, Mark (BNL)

Session Classification: PPC (Parameters, Power and Cost)

Contribution ID: 184 Type: not specified

Introduction and follow-up of last meeting

Monday 12 July 2021 14:30 (20 minutes)

Presenter: QUETTIER, Lionel

Session Classification: Magnets

Contribution ID: 185 Type: not specified

Current status of high field solenoids

Monday 12 July 2021 14:50 (10 minutes)

Presenter: QUETTIER, Lionel

Session Classification: Magnets

Contribution ID: 186 Type: not specified

vFFA magnet

Monday 12 July 2021 15:00 (10 minutes)

Presenter: LAGRANGE, Jean-Baptiste

Session Classification: Magnets

Contribution ID: 187 Type: not specified

High frequency HTS magnet

Monday 12 July 2021 15:10 (10 minutes)

Presenter: SHILTSEV, Vladimir (Fermilab)

Session Classification: Magnets

Contribution ID: 188 Type: not specified

Combined function magnet options

Monday 12 July 2021 15:20 (10 minutes)

Presenter: OGITSU, Toru

Session Classification: Magnets

Contribution ID: 189 Type: not specified

Stress management for High Energy Muon Collider's Storage Ring and IR Magnets

Monday 12 July 2021 15:30 (10 minutes)

Presenter: BARZI, emanuela (Fermilab)

Session Classification: Magnets

Contribution ID: 190 Type: not specified

Discussion about technical issues and R&D timelines

Monday 12 July 2021 15:40 (1h 20m)

Session Classification: Magnets

Contribution ID: 191 Type: not specified

Possible synergies and collaborators

Monday 12 July 2021 17:00 (30 minutes)

Session Classification: Magnets

Contribution ID: 192 Type: not specified

Joint discussion with Beam Dynamics in Beam Dynamics Room

Session Classification: PC (Proton Complex)

Contribution ID: 193 Type: not specified

Joint discussion with Proton complex in Beam dynamics room

Monday 12 July 2021 16:00 (30 minutes)

Session Classification: BD (Beam Dynamics)

Contribution ID: 194 Type: not specified

Discussion on Scenarios

Monday 12 July 2021 16:10 (1 hour)

Session Classification: PPC (Parameters, Power and Cost)

Introduction

Contribution ID: 195 Type: not specified

Introduction

Monday 12 July 2021 14:30 (15 minutes)

Session Classification: PC (Proton Complex)

Contribution ID: 196 Type: not specified

ESS Status and Prospects

Monday 12 July 2021 14:45 (20 minutes)

Session Classification: PC (Proton Complex)

Discussion

Contribution ID: 197 Type: not specified

Discussion

Monday 12 July 2021 15:05 (55 minutes)

Session Classification: PC (Proton Complex)

Contribution ID: 198 Type: not specified

Joint discussion with Beam Dynamics in Beam Dynamics Room

Monday 12 July 2021 16:00 (35 minutes)

Session Classification: PC (Proton Complex)

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Discussion

Contribution ID: 199 Type: not specified

Discussion

Monday 12 July 2021 16:35 (1h 25m)

Session Classification: PC (Proton Complex)

Contribution ID: 200 Type: not specified

Breakout Rooms

Monday 12 July 2021 14:25 (5 minutes)

Presenter: ROGERS, Chris (STFC)

Session Classification: Plenary session (in same zoom room)