

# Muon Collider Workshop 2018



## Report of Contributions

Contribution ID: 1

Type: **not specified**

## Registration

*Monday, 2 July 2018 09:00 (30 minutes)*

Contribution ID: 2

Type: **not specified**

## Welcome to Muon Collider 2018

*Monday, 2 July 2018 09:30 (10 minutes)*

**Presenters:** ZANETTI, Marco (Universita e INFN, Padova (IT)); MEZZETTO, Mauro (INFN)

Contribution ID: 3

Type: **not specified**

## Lunch

*Monday, 2 July 2018 13:00 (1 hour)*

Contribution ID: 4

Type: **not specified**

## Coffe Break

*Monday, 2 July 2018 15:40 (20 minutes)*

Contribution ID: 5

Type: **not specified**

## Social Dinner

*Monday, 2 July 2018 20:30 (2 hours)*

Contribution ID: 6

Type: **not specified**

## Coffe Break

*Tuesday, 3 July 2018 11:00 (30 minutes)*

Contribution ID: 7

Type: **not specified**

## Lunch

*Tuesday, 3 July 2018 13:00 (1 hour)*



Contribution ID: **8**

Type: **not specified**

## **Coffe Break**

*Tuesday, 3 July 2018 15:40 (30 minutes)*

Contribution ID: 9

Type: **not specified**

## Overview of MAP Results and Outlook

*Monday, 2 July 2018 10:30 (30 minutes)*

**Presenter:** Dr PALMER, Mark (BNL)

**Session Classification:** Overview

Contribution ID: **10**

Type: **not specified**

## **European Muon Collider Strategy**

*Tuesday, 3 July 2018 16:10 (30 minutes)*

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

**Session Classification:** Discussion

Contribution ID: **11**

Type: **not specified**

## **MICE**

*Monday, 2 July 2018 11:20 (20 minutes)*

**Presenter:** LONG, Kenneth Richard (Imperial College (GB))

**Session Classification:** Production schemes

Contribution ID: 12

Type: **not specified**

## Gamma Factory

*Monday, 2 July 2018 11:40 (20 minutes)*

**Presenter:** KRASNY, Witek

**Session Classification:** Production schemes

Contribution ID: 13

Type: **not specified**

## Proton Laser scheme

*Monday, 2 July 2018 12:20 (20 minutes)*

**Presenters:** CURATOLO, Camilla (INFN - National Institute for Nuclear Physics); CURATOLO, Camilla (INFN - National Institute for Nuclear Physics)

**Session Classification:** Production schemes

Contribution ID: 14

Type: **not specified**

## Positron regeneration

*Monday, 2 July 2018 14:40 (20 minutes)*

**Presenter:** Dr COLLAMATI, Francesco (INFN Roma I (IT))

**Session Classification:** Production schemes II

Contribution ID: 15

Type: **not specified**

## **Muon accumulator ring**

*Monday, 2 July 2018 15:00 (20 minutes)*

**Presenter:** BLANCO GARCIA, Oscar Roberto (LNF/INFN)

**Session Classification:** Production schemes II



Contribution ID: **16**

Type: **not specified**

## LEMMA

*Monday, 2 July 2018 14:00 (20 minutes)*

**Presenter:** BOSCOLO, Manuela (INFN e Laboratori Nazionali di Frascati (IT))

**Session Classification:** Production schemes II

Contribution ID: 17

Type: **not specified**

## Positron source options

*Monday, 2 July 2018 14:20 (20 minutes)*

**Presenter:** GUIDUCCI, Susanna (INFN-LNF)

**Session Classification:** Production schemes II

Contribution ID: **18**

Type: **not specified**

## **Overview of requirements on targets**

*Monday, 2 July 2018 16:00 (20 minutes)*

**Presenter:** IAFRATI, Matteo (Enea)

**Session Classification:** Target options

Contribution ID: 19

Type: **not specified**

## **Materials under extreme conditions, simulations and tests**

*Monday, 2 July 2018 16:20 (30 minutes)*

**Presenters:** CARRA, Federico (CERN); Dr SCAPIN, Martina (Politecnico di Torino)

**Session Classification:** Target options

Contribution ID: 20

Type: **not specified**

## Channeling technique to shape muon beams

**Presenters:** DABAGOV, Sultan (INFN); DABAGOV, Sultan (INFN e Laboratori Nazionali di Frascati (IT))

**Session Classification:** Target options

Contribution ID: 21

Type: **not specified**

## Experimental tests

**Session Classification:** Target options

Contribution ID: 22

Type: **not specified**

## nuStorm

*Tuesday, 3 July 2018 09:00 (20 minutes)*

**Presenter:** PASTERNAK, Jaroslaw (Imperial College, London)

**Session Classification:** Muon Collider Concepts

Contribution ID: 23

Type: **not specified**

## **Muon Collider compared with others**

*Tuesday, 3 July 2018 09:40 (20 minutes)*

**Presenters:** DELAHAYE, Jean-Pierre; DELAHAYE, Pierre (Centre National de la Recherche Scientifique (FR))

**Session Classification:** Muon Collider Concepts



Contribution ID: 24

Type: **not specified**

## **14 TeV Muon collider: LHC, MAP and LEMA (remote)**

*Tuesday, 3 July 2018 09:20 (20 minutes)*

**Presenter:** NEUFFER, David

**Session Classification:** Muon Collider Concepts

Contribution ID: 25

Type: **not specified**

## Upgrading FCC into a muon collider

*Tuesday, 3 July 2018 10:00 (20 minutes)*

**Presenter:** ZIMMERMANN, Frank (CERN)

**Session Classification:** Muon Collider Concepts

Contribution ID: 26

Type: **not specified**

## **Rapidly pulsed magnets**

*Tuesday, 3 July 2018 12:10 (20 minutes)*

**Presenter:** SORBI, Massimo Leone (Università degli Studi e INFN Milano (IT))

**Session Classification:** Muon Collider Concepts (cont.)

Contribution ID: 27

Type: **not specified**

## **High-gradient acceleration concepts**

**Session Classification:** Muon Collider Concepts (cont.)

Contribution ID: 28

Type: **not specified**

## **Fixed Field Alternating Gradient Accelerators and the CBETA Test Facility**

*Tuesday, 3 July 2018 11:30 (20 minutes)*

**Presenter:** BOGACZ, S. Alex (Jefferson Lab)

**Session Classification:** Muon Collider Concepts (cont.)

Contribution ID: 29

Type: **not specified**

## Beam induced background

*Tuesday, 3 July 2018 14:00 (20 minutes)*

**Presenter:** LUCCHESI, Donatella (Universita e INFN, Padova (IT))

**Session Classification:** Experimental background and neutrino radiation

Contribution ID: **30**

Type: **not specified**

## **Neutrino radiation**

*Tuesday, 3 July 2018 14:20 (20 minutes)*

**Presenter:** KAPLAN, Daniel (Illinois Institute of Technology)

**Session Classification:** Experimental background and neutrino radiation

Contribution ID: **31**

Type: **not specified**

## The Higgs factory option

*Tuesday, 3 July 2018 15:00 (20 minutes)*

**Presenter:** BLONDEL, Alain (Universite de Geneve (CH))

**Session Classification:** Physics program at a muon collider and experimental issues



Contribution ID: 32

Type: **not specified**

## Exploring the Energy frontier with a Muon Collider

*Tuesday, 3 July 2018 14:40 (20 minutes)*

**Presenter:** DE BLAS, Jorge (INFN-Padova)

**Session Classification:** Physics program at a muon collider and experimental issues

Contribution ID: **33**

Type: **not specified**

## **Coffe Break**

*Monday, 2 July 2018 11:00 (20 minutes)*

Contribution ID: 34

Type: **not specified**

**Restricted Meeting with the MAP Community (EXACT  
LOCATION WILL BE COMUNICATED TO  
ATTENDANTS)**

*Sunday, 1 July 2018 16:00 (2 hours)*

Contribution ID: 35

Type: **not specified**

## Beam test in SPS and LHC

*Monday, 2 July 2018 12:00 (20 minutes)*

**Presenter:** ALEMANY FERNANDEZ, Reyes (CERN)

**Session Classification:** Production schemes

Contribution ID: **36**

Type: **not specified**

## Positron ring

*Monday, 2 July 2018 15:20 (20 minutes)*

**Presenter:** LIUZZO, Simone Maria (ESRF)

**Session Classification:** Production schemes II

Contribution ID: 37

Type: **not specified**

## Possible beam tests

Contribution ID: **38**

Type: **not specified**

## **Use of electrons in the SPS for muon collider R&D**

*Monday, 2 July 2018 17:15 (20 minutes)*

**Presenter:** SCHULTE, Daniel (CERN)

**Session Classification:** Possible beam tests

Contribution ID: 39

Type: **not specified**

## Experimental tests

*Monday, 2 July 2018 17:35 (20 minutes)*

**Presenters:** ANULLI, Fabio (Sapienza Universita e INFN, Roma I (IT)); ANTONELLI, Mario (INFN e Laboratori Nazionali di Frascati (IT))

**Session Classification:** Possible beam tests



Contribution ID: 40

Type: **not specified**

## Visit to the Botanic Garden

*Monday, 2 July 2018 18:30 (1 hour)*

Contribution ID: 41

Type: **not specified**

## **RLA, RCS and FFAG Acceleration Concepts**

*Tuesday, 3 July 2018 10:20 (20 minutes)*

**Presenter:** BERG, J. Scott (Brookhaven National Laboratory)

**Session Classification:** Muon Collider Concepts

Contribution ID: 42

Type: **not specified**

## **Muon Acceleration for Neutrino Factory and Beyond**

*Tuesday, 3 July 2018 10:40 (20 minutes)*

**Presenter:** BOGACZ, S. Alex (Jefferson Lab)

**Session Classification:** Muon Collider Concepts

Contribution ID: 43

Type: **not specified**

## Higgs Physics at a Muon Collider

*Tuesday, 3 July 2018 15:20 (20 minutes)*

**Presenter:** GRECO, Mario (Roma Tre Universita Degli Studi (IT))

**Session Classification:** Physics program at a muon collider and experimental issues

Contribution ID: 44

Type: **not specified**

## **Design and construction of beam intercepting devices (including targets) at CERN**

*Monday, 2 July 2018 16:50 (25 minutes)*

**Presenter:** NUIRY, Francois-Xavier (CERN)

**Session Classification:** Target options

Contribution ID: 45

Type: **not specified**

## Physics reach at high energy

**Presenter:** DE BLAS, Jorge (INFN-Padova)

**Session Classification:** Physics program at a muon collider and experimental issues

Contribution ID: 46

Type: **not specified**

# Muon Collider in the Future of Particle Physics

*Monday, 2 July 2018 09:45 (30 minutes)*

**Presenter:** Prof. RUBBIA, Carlo (GSSI (Gran Sasso Science Institute))

**Session Classification:** Overview

Contribution ID: 47

Type: **not specified**

## **Muon production based on ions incident on an internal target**

*Tuesday, 3 July 2018 11:50 (20 minutes)*

**Presenters:** ROGERS, Chris (STFC); ROGERS, Chris (Imperial College); ROGERS, Chris (RAL)

**Session Classification:** Muon Collider Concepts (cont.)