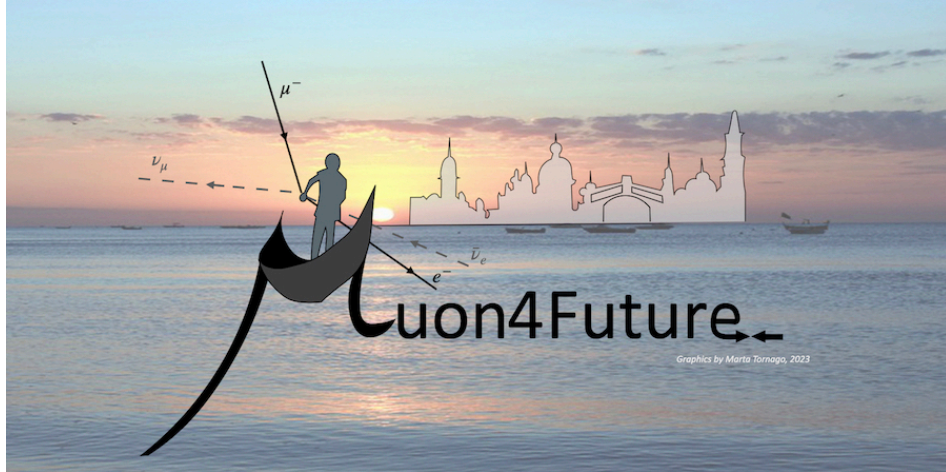


# Muon4Future



## Report of Contributions

Contribution ID: 1

Type: **not specified**

## Welcome the workshop

*Monday, May 29, 2023 1:30 PM (10 minutes)*

**Presenter:** LUCCHESI, Donatella (Istituto Nazionale di Fisica Nucleare)

Contribution ID: 2

Type: **not specified**

## Summary of the Workshop

**Session Classification:** Discussion on Sinergies

Contribution ID: 3

Type: **not specified**

## High intensity muon beam project at PSI

*Monday, May 29, 2023 2:00 PM (30 minutes)*

**Presenter:** PAPA, Angela (Paul Scherrer Institut)

**Session Classification:** Present and Future Muon Facilities

Contribution ID: 4

Type: **not specified**

## **Advanced muon facility at Fermilab**

*Monday, May 29, 2023 2:30 PM (30 minutes)*

**Presenter:** BERNSTEIN, Robert Bernstein (Fermilab)

**Session Classification:** Present and Future Muon Facilities

Contribution ID: 5

Type: **not specified**

## **J-PARC muon facility**

*Monday, May 29, 2023 3:00 PM (30 minutes)*

**Presenter:** YAMAZAKI, Takayuki (KEK)

**Session Classification:** Present and Future Muon Facilities

Contribution ID: 6

Type: **not specified**

## **Muon collider demonstrator project and CERN muon facility**

*Monday, May 29, 2023 3:50 PM (30 minutes)*

**Presenter:** ROGERS, Chris (RAL)

**Session Classification:** Present and Future Muon Facilities

Contribution ID: 7

Type: **not specified**

## **Guided discussion on muon facilities activities and synergies**

*Monday, May 29, 2023 4:20 PM (30 minutes)*

**Presenter:** DIEMOZ, Marcella (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Present and Future Muon Facilities



Contribution ID: 8

Type: **not specified**

## **Muon ionization cooling results and prospects**

*Monday, May 29, 2023 5:20 PM (20 minutes)*

**Presenter:** LONG, Kenneth

**Session Classification:** Muon Beams Technologies

Contribution ID: 9

Type: **not specified**

## **Current experimental activities on Muonium**

*Monday, May 29, 2023 5:40 PM (20 minutes)*

**Presenter:** IWAI, Ryoto (KEK)

**Session Classification:** Muon Beams Technologies

Contribution ID: 10

Type: **not specified**

## **Muon cooling at J-PARC**

*Monday, May 29, 2023 6:00 PM (20 minutes)*

**Presenter:** KAMIOKA, Shusei (KEK)

**Session Classification:** Muon Beams Technologies

Contribution ID: 11

Type: **not specified**

## **Muon cooling at PSI**

*Monday, May 29, 2023 6:20 PM (20 minutes)*

**Presenter:** LO SPALLUTO, Giuseppe

**Session Classification:** Muon Beams Technologies

Contribution ID: 12

Type: **not specified**

## High energy muon collisions status and challenges

*Monday, May 29, 2023 6:40 PM (30 minutes)*

**Presenter:** SCHULTE, Daniel

**Session Classification:** Muon Beams Technologies

Contribution ID: 13

Type: **not specified**

## **Guided discussion on muon technologies and possible synergies among them**

*Monday, May 29, 2023 7:10 PM (30 minutes)*

**Presenter:** BONESINI, Maurizio Giorgio (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Muon Beams Technologies

Contribution ID: 14

Type: **not specified**

## The broad physics case of a muon collider

*Tuesday, May 30, 2023 9:00 AM (30 minutes)*

**Presenter:** CRAIG, Nathaniel (University of California, Santa Barbara)

**Session Classification:** Physics with High Energy Muon Beams

Contribution ID: 15

Type: **not specified**

## **muTristan physics possibilities**

*Tuesday, May 30, 2023 9:30 AM (30 minutes)*

**Presenter:** KITANO, Ryuichiro (Theory Center, KEK)

**Session Classification:** Physics with High Energy Muon Beams



Contribution ID: 16

Type: **not specified**

## **Challenges and synergies of a detector at high energy muon collider**

*Tuesday, May 30, 2023 10:00 AM (30 minutes)*

**Presenter:** PAGAN GRISO, Simone (LBNL)

**Session Classification:** Physics with High Energy Muon Beams

Contribution ID: 17

Type: **not specified**

## **Guided discussion high energy muon beam physics and possible synergies**

*Tuesday, May 30, 2023 10:30 AM (30 minutes)*

**Presenter:** CESAROTTI, Cari

**Session Classification:** Physics with High Energy Muon Beams

Contribution ID: **18**

Type: **not specified**

## Theory overview of muon $g-2$ and EDM

*Tuesday, May 30, 2023 12:00 PM (30 minutes)*

**Presenter:** PARADISI, Paride (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Muon Magnetic Moment and  $g-2$

Contribution ID: 19

Type: **not specified**

## **Muon g-2 and EDM at Fermilab**

*Tuesday, May 30, 2023 12:30 PM (20 minutes)*

**Presenter:** FOSTER, Sean (Boston University)

**Session Classification:** Muon Magnetic Moment and g-2

Contribution ID: 20

Type: **not specified**

## **Muon g-2 and EDM at J-PARC**

*Tuesday, May 30, 2023 12:50 PM (20 minutes)*

**Presenter:** ONDERWATER, Gerco

**Session Classification:** Muon Magnetic Moment and g-2

Contribution ID: 21

Type: **not specified**

## **Muon $g-2$ and EDM at PSI**

*Tuesday, May 30, 2023 1:10 PM (20 minutes)*

**Presenter:** SCHMIDT-WELLENBURG, Philipp (Paul Scherrer Institute)

**Session Classification:** Muon Magnetic Moment and  $g-2$

Contribution ID: 22

Type: **not specified**

## **Guided discussion on muon magnetic moment, $g-2$ and HVP on current results, future possibilities and synergies among experiments and facilities**

*Tuesday, May 30, 2023 4:30 PM (30 minutes)*

**Presenter:** DRIUTTI, Anna

**Session Classification:** Hadronic Vacuum Polarization

Contribution ID: 23

Type: **not specified**

## **Hadronic Vacuum Polarization dispersive and data-driven methods**

*Tuesday, May 30, 2023 2:30 PM (30 minutes)*

**Presenter:** COLANGELO, Gilberto

**Session Classification:** Hadronic Vacuum Polarization



Contribution ID: 24

Type: **not specified**

## Hadronic Vacuum Polarization on lattice

*Tuesday, May 30, 2023 3:00 PM (30 minutes)*

**Presenter:** FODOR, Zoltan (University of Wuppertal)

**Session Classification:** Hadronic Vacuum Polarization

Contribution ID: 25

Type: **not specified**

## The MuonE experiment

*Tuesday, May 30, 2023 3:30 PM (30 minutes)*

**Presenter:** POCANIC, Dinko (University of Virginia)

**Session Classification:** Hadronic Vacuum Polarization

Contribution ID: 26

Type: **not specified**

## **R-ratio measurements**

*Tuesday, May 30, 2023 4:00 PM (30 minutes)*

**Presenter:** ALIBERTI, Riccardo

**Session Classification:** Hadronic Vacuum Polarization

Contribution ID: 27

Type: **not specified**

## Discussion

**Session Classification:** Hadronic Vacuum Polarization

Contribution ID: 28

Type: **not specified**

## **Charge Lepton Flavor Violation in muons:theory overview**

*Tuesday, May 30, 2023 11:30 AM (30 minutes)*

**Presenter:** TEIXEIRA, Ana M. (LPC Clermont-Ferrant)

**Session Classification:** Muon Magnetic Moment and g-2

Contribution ID: 29

Type: **not specified**

## **Charge Lepton Flavor Violation: experimental activities**

*Tuesday, May 30, 2023 5:30 PM (30 minutes)*

**Presenter:** FUJII, Yuki

**Session Classification:** Charge Lepton Flavor Violation

Contribution ID: 30

Type: **not specified**

## **Lepton Flavor Violation in axion-like particles**

*Tuesday, May 30, 2023 6:00 PM (30 minutes)*

**Presenter:** RENNEN, Sophie

**Session Classification:** Charge Lepton Flavor Violation

Contribution ID: 31

Type: **not specified**

## Future mu to e-gamma experiments

*Wednesday, May 31, 2023 9:00 AM (30 minutes)*

**Presenter:** VOENA, Cecilia (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Charge Lepton Flavor Violation



Contribution ID: 32

Type: **not specified**

## Future mu to e conversion experiments

*Wednesday, May 31, 2023 9:30 AM (30 minutes)*

**Presenter:** PEZZULLO, Gianantonio (Yale University)

**Session Classification:** Charge Lepton Flavor Violation

Contribution ID: 33

Type: **not specified**

## **Z-dependence in mu to e conversion**

**Session Classification:** Charge Lepton Flavor Violation

Contribution ID: 34

Type: **not specified**

## **Guided discussion on CLFV on current results, future possibilities and synergies among experiments**

*Wednesday, May 31, 2023 10:00 AM (30 minutes)*

**Presenter:** RENGA, Francesco (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Charge Lepton Flavor Violation

Contribution ID: 35

Type: **not specified**

## **Muography: overview, applications and future developments**

*Wednesday, May 31, 2023 11:00 AM (30 minutes)*

**Presenter:** SARACINO, Giulio (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Muons in Other Fields

Contribution ID: 36

Type: **not specified**

## **The muon ISIS facility at RAL and applications**

*Wednesday, May 31, 2023 11:30 AM (30 minutes)*

**Presenter:** HILLIER, Adrian

**Session Classification:** Muons in Other Fields

Contribution ID: 37

Type: **not specified**

## **Muons for cultural heritage**

*Wednesday, May 31, 2023 12:00 PM (25 minutes)*

**Presenter:** AL MOUSSAWI, Marwa

**Session Classification:** Muons in Other Fields

Contribution ID: 38

Type: **not specified**

## **Nuclear reactor imaging using muography (TBA)**

**Session Classification:** Muons in Other Fields

Contribution ID: 39

Type: **not specified**

## **Introduction to $\mu$ SR and a quick overview of the S $\mu$ S facility instruments at PSI**

*Wednesday, May 31, 2023 12:25 PM (25 minutes)*

**Presenter:** LUETKENS, hubertus

**Session Classification:** Muons in Other Fields



Contribution ID: 40

Type: **not specified**

## **Guided discussion on muon application in other fields**

*Wednesday, May 31, 2023 12:50 PM (30 minutes)*

**Presenter:** AMAPANE, Nicola Carlo (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Muons in Other Fields

Contribution ID: 41

Type: **not specified**

## Summary of the Workshop and next steps

*Wednesday, May 31, 2023 2:30 PM (30 minutes)*

Contribution ID: 42

Type: **not specified**

## **Muon activity at the ESS facility**

*Monday, May 29, 2023 3:30 PM (20 minutes)*

**Presenter:** DRACOS, Marcos (IPHC-IN2P3/CNRS)

**Session Classification:** Present and Future Muon Facilities

Contribution ID: 43

Type: **not specified**

## Registration and welcome lunch

*Monday, May 29, 2023 12:30 PM (1 hour)*

A light lunch will be offered while registration at the secretariat desk is going on.

Contribution ID: 44

Type: **not specified**

## **Introduction to the wine and cheese tasting event**

There will presented a few slides to explain how the “wine & cheese” event will go on. Some instructions on how to taste wines and some useful information about the wines that will be served, will be given by experts.

Contribution ID: 45

Type: **not specified**

## Introduction to the workshop

*Monday, May 29, 2023 1:40 PM (20 minutes)*

**Presenter:** MEADE, Patrick

Contribution ID: 46

Type: **not specified**

## Workshop Photo

Contribution ID: 47

Type: **not specified**

## **Introduction to the wine and cheese testing**

*Tuesday, May 30, 2023 6:40 PM (20 minutes)*