



上海交通大学
SHANGHAI JIAO TONG UNIVERSITY



Argonne
NATIONAL LABORATORY

NUFACT 2024 WG 4 - MUONS



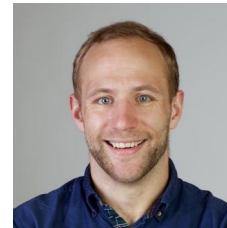
09/16/2024

Gavin Hesketh



gavin.hesketh@ucl.ac.uk

Simon Corrodi



scorrodi@anl.gov

Kim Siang Khaw



kimsiang84@sjtu.edu.cn



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U.S. Department of Energy laboratory
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WG4 INTRODUCTION - WORKSHOP QUESTIONS

Why Muons at NuFact?

Neutrino beam from accelerators → some form of muon beam
vice versa somewhat less true/useful?

Q1) Status: what can and will we learn from muons at existing facilities?

Q2) Opportunities: what are the opportunities for muon physics from future facilities
for example PIP-II at Fermilab, HiMB at PSI?

Q3) Requirements: What beams/facilities are needed for future muon* experiments?

THE MUON/TAU MAGNETIC MOMENT

Plenary - Thursday

Muon CLFV and g-2 theories

Aida El-Khadra

Auditorium, #402

10:55 - 11:25

Poster - Monday

A Dedicated Period of Magnetic Field Systematics Studies in the Muon g-2 Experiment at Fermilab

Matthew Bressler

Parallel Session - Monday

Anomalous Spin Precession Frequency Analysis in the Muon g-2 Experiment at Fermilab

On Kim

E1200, #402

13:45 - 14:05

Magnetic Field Analysis in the Muon g-2 Experiment

David Kessler

E1200, #402

14:05 - 14:25

Beam dynamics corrections of the Muon g-2 Experiment at Fermilab

David Tarazona

E1200, #402

14:25 - 14:45

electromagnetic moments of the τ lepton with CMS

Cecile Caillol

E1200, #402

14:45 - 15:05

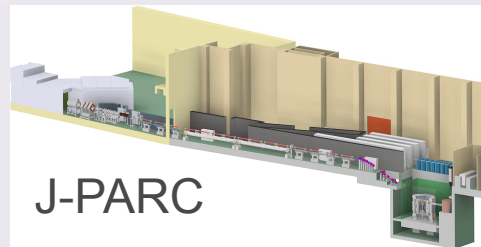
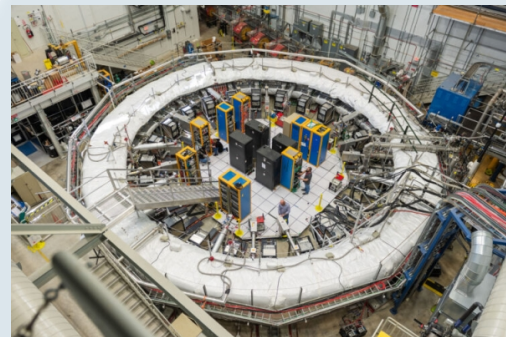
Status and prospect of the J-PARC muon g-2/EDM experiment

Kazuhiro Suzuki

E1200, #402

15:05 - 15:25

Fermilab Muon g-2



ELECTRIC DIPOLE MOMENTS

Parallel Session - Monday

Status and prospect of the J-PARC muon g-2/EDM experiment

Kazuhiro Suzuki

E1200, #402

15:05 - 15:25

muEDM at J-PARC

Parallel Session - Tuesday

Status of the muEDM Experiment at PSI

Dr Kim Siang Khaw

E1200, #402

15:05 - 15:25

muEDM at PSI

Parallel Session - Wednesday

The Proton EDM

Dr Alexander Keshavarzi

E1200, #402

11:10 - 11:30

Storage Ring: srEDM

CHARGED LEPTON FLAVOR VIOLATION

Plenary - Tuesday

First MEG-II result

Matteo De Gerone

Auditorium, #402

11:35 - 12:05

Plenary - Thursday

Muon CLFV and g-2 theories

Aida El-Khadra

Auditorium, #402

10:55 - 11:25

Muon CLFV and g-2 experiments

Sophie Middleton

Auditorium, #402

11:25 - 11:55

Parallel - Thursday

The Mu2e experiment

Andrei Gaponenko

E1100, #402

16:15 - 16:35

(Z,A) Dependence of Coherent Muon-to-Electron Conversion

Leo Borrel

E1100, #402

16:35 - 16:55

The Mu3e experiment: status and short-term data taking plans

Robert-Mihai Amarinei

E1100, #402

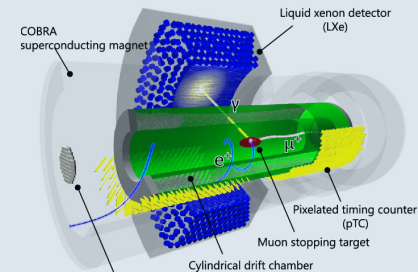
16:55 - 17:15

Poster - Monday

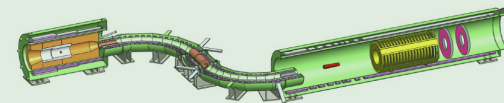
A fast scintillating fibre detector for the Mu3e experiment

Robert-Mihai Amarinei

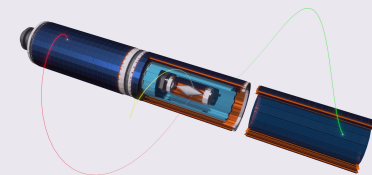
MEG-II at PSI



Mu2e at Fermilab



Mu3e at PSI



(CHARGED) LEPTON FLAVOR VIOLATION

Parallel - Tuesday

Recent Lepton Flavor Results in ATLAS

E1200, #402

Benjamin James Wilson

13:45 - 14:05

Recent LFV results from CMS

E1200, #402

Federica Maria Simone

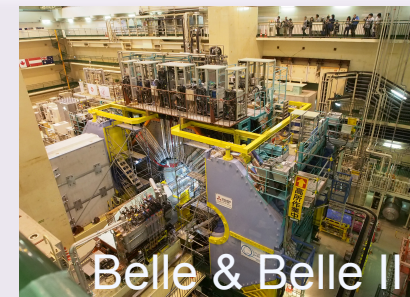
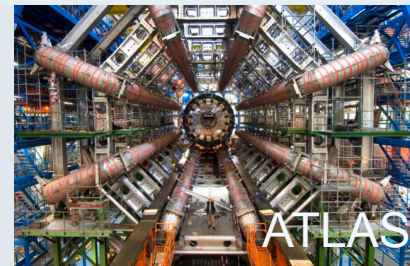
14:05 - 14:25

Searches for CLFV in tau and hadron decays at Belle and Belle II

E1200, #402

Paolo Leo

14:25 - 14:45



OTHER BSM SEARCHES WITH MUONS

Parallel - Wednesday

Probing and Knocking with Muons for Dark Matter and others <i>E1200, #402</i>	<i>Dr Qiang Li</i> 
Review of recent searches for Heavy Neutral Leptons in CMS <i>E1200, #402</i>	<i>Ka hei martin Kwok</i>
Signatures of light new physics at muon factories <i>E1200, #402</i>	<i>Tony Menzo</i>
Dark Matter Search in the Muon g-2 Experiment at Fermilab <i>E1200, #402</i>	<i>Byungchul Yu</i>

FACILITIES

Parallel - WG 3x4 - Tuesday

Update on the design of the 6D Muon Cooling Demonstrator

Rohan Kamath

E1200, #402

16:15 - 16:35

Simulation and design of the neutrinos from STORed Muons (nuSTORM) experiment

Rohan Kamath

E1200, #402

16:35 - 16:55

High-Power Targetry for Muon Production

Michael Hedges

E1200, #402

16:55 - 17:15

Parallel - Thursday

The Proposed Advanced Muon Facility (AMF) at Fermilab

Dr Sophie Middleton

E1100, #402

17:15 - 17:35

Plenary - Wednesday

Fermilab accelerator plans and schedule

Robert Zwaska

Auditorium, #402

08:30 - 09:00

J-PARC accelerator and neutrino beamline plans and schedule

Tetsuro Sekiguchi et al.

Auditorium, #402

09:00 - 09:30

ESSnuSB status

George Fanourakis

Auditorium, #402

09:30 - 10:00

JOIN US IN THE WG4 PARALLEL SESSIONS



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