

Open Users Meeting BV51

Report of Contributions

Contribution ID: 0

Type: **not specified**

Presentation of the Committee recommendations

Wednesday, 29 January 2020 14:00 (30 minutes)

Presenter: FILIPPONE, Brad (Caltech)

Session Classification: Committee Report

Contribution ID: 1

Type: **not specified**

Announcement of the beam schedule 2020

Wednesday, 29 January 2020 14:30 (10 minutes)

Summary

Presenter: RITT, Stefan (Paul Scherrer Institut)

Session Classification: Committee Report

Contribution ID: 2

Type: **not specified**

Opening of BV

Tuesday, 28 January 2020 14:00 (5 minutes)

Presenter: FILIPPONE, Brad (Caltech)

Session Classification: Opening

Contribution ID: 3

Type: **not specified**

Welcome, PSI News

Tuesday, 28 January 2020 14:05 (10 minutes)

Presenter: KIRCH, Klaus Stefan (Paul Scherrer Institut)

Session Classification: Opening

Contribution ID: 4

Type: **not specified**

Flavour and searches for New Physics: muons and neutrons at high intensities

Tuesday, 28 January 2020 14:15 (45 minutes)

New Physics can be manifest at the high intensity frontier through a vast array of phenomena, which includes rare processes (forbidden in the Standard Model), or tiny deviations from the Standard Model's expectations. Rare flavour transitions in both hadron and lepton sectors, as well as CP violating observables, have been shown to be formidable tools to discover New Physics.

Muons are very powerful and versatile probes of New Physics - numerous experiments rely on the study of "muon channels" to search for processes violating lepton number, charged lepton flavours, or even the universality of lepton flavours.

Likewise, the study of electric dipole moments opens a unique window towards new sources of CP violation, rendering searches for the electron and the neutron EDM very sensitive probes of physics beyond the Standard Model.

Following a short overview of the status of dedicated experimental searches, we comment on how these observables can shed light on the underlying model of New Physics at work, allowing to falsify it and/or to probe NP scales which are otherwise unreachable.

With the foreseen improvements in experimental sensitivity, accompanied by phenomenological studies, the coming years offer very exciting prospects concerning flavour physics and CP violation.

Summary

Presenter: TEIXEIRA, Ana (LPC Clermont Ferrand)

Session Classification: Opening

Contribution ID: 6

Type: **not specified**

R-16-01.1

Presenter: KNECHT, Andreas (Paul Scherrer Institut)

Contribution ID: 9

Type: **not specified**

R-12-03.1

Presenter: SCHOENING, Andre (University Heidelberg, Institute of Physics)

Contribution ID: **10**

Type: **not specified**

R-05-03.1

Presenter: BISON, Georg (Paul Scherrer Institut)

Contribution ID: **18**

Type: **not specified**

Ordinary muon capture as a probe of properties of double beta decay processes (OMC4DBD)

Tuesday, 28 January 2020 15:30 (30 minutes)

Summary

Presenter: ZINATULINA, Daniya (Joint Institute for Nuclear Research)

Session Classification: New Proposals (25'+5')

Contribution ID: 19

Type: **not specified**

Search for muon catalyzed d-3He fusion

Tuesday, 28 January 2020 15:00 (30 minutes)

Presenter: KRAVCHENKO, Polina (PNPI)

Session Classification: New Proposals (25'+5')

Contribution ID: **20**

Type: **not specified**

R-99-05.2 MEG II

Tuesday, 28 January 2020 17:20 (20 minutes)

Presenter: BALDINI, alessandro (INFN)

Session Classification: Progress Reports (15'+5')

Contribution ID: 21

Type: **not specified**

R-05-03.1 nEDM Result (25'+5')

Tuesday, 28 January 2020 16:50 (30 minutes)

Summary

Presenter: PIGNOL, Guillaume (LPSC Grenoble)

Session Classification: Progress Reports (15'+5')

Contribution ID: 22

Type: **not specified**

R-12-01.2 MUSE

Tuesday, 28 January 2020 18:00 (20 minutes)

Presenter: DOWNIE, Evangeline (George Washington University)

Session Classification: Progress Reports (15'+5')

Contribution ID: 23

Type: **not specified**

R-12-03.1 Mu3e

Tuesday, 28 January 2020 17:40 (20 minutes)

Presenter: MEIER, Frank (Paul Scherrer Institut)

Session Classification: Progress Reports (15'+5')

Contribution ID: 24

Type: **not specified**

Search for Neutron to Mirror-Neutron oscillations

Tuesday, 28 January 2020 16:30 (20 minutes)

Presenter: AYRES, Nicholas (ETH Zurich)

Session Classification: New Letters of Intent (15'+5')