

Future Muon Sources

12th and 13th January 2015

George Buckley Lecture Theatre, University of Huddersfield

Talks can be seen on the [EuCARD2](#) site

Monday 12th January

12:00 **Lunch**

13:30 **Future Muon Sources: Meeting Overview**

(Bob Cywinski)

13:55 **Session 1: Muon production and accelerator technologies**

(Roger Barlow)

- 13:55-14:20 Simulations of muon production targets
(Adriana Bungau, University of Huddersfield)
- 14:20-14:45 Muon beamlines and Target Technologies at J-PARC
(Naritoshi Kawamura, J-PARC)
- 14:45-15:10 HiMB: Towards a new high intensity muon beam
(Peter-Raymond Kettle, PSI)
- 15:10-15:35 Future application of FFAG's for muon production
(Shinji Machida, STFC-RAL, on behalf of Yoshi Mori, University of Kyoto)
- Discussion*

15:45 **Coffee**

16:05 **Session 2: Specialised beams**

(Elvezio Morenzoni)

- 16:05-16:30 Comparison between laser and conventional muon sources
(Stephanie Ford, Imperial College London)
- 16:30-16:55 MuCool: Towards a much improved phase space slow positive muon beam
(Andreas Knecht, PSI)
- 16:55-17:20 An overview of the Muon International Cooling Experiment (MICE)
(Ken Long, Imperial College, London, on behalf of Roy Preece, STFC-RAL)
- 17:20-17:45 Muon collider technology
(Ken Long, Imperial College, London)
- 17:45-18:10 Muon production using a high power cyclotron
(Luciano Calabretta, Laboratori Nazionali del Sud (INFN-LNS))
- Discussion*

19:00 **Reception drinks and poster session**

20:00 **Dinner**

Tuesday 13th January

09:00 **Session 3: Condensed matter μ SR / New Techniques**

(Sue Kilcoyne)

- 09:00-09:25 Muons for condensed matter research
(Tom Lancaster, Durham University)
- 09:25-09:50 Local probe investigation of spin and charge dynamics in organic
semiconductors
(Alan Drew, Queen Mary, University of London)
- 09:50-10:15 Low energy muons at PSI
(Thomas Prokscha, PSI)
- 10:15-10:40 Low energy muons using laser ionisation
(Katsuhiko Ishida, RIKEN)

Discussion

10:50 **Coffee**

11:10 **Session 4: Update and outlook from the Facilities**

(Stephen Cottrell)

- 11:10-11:25 PSI *(Elvezio Morenzoni, PSI)*
- 11:25-11:40 ISIS *(Adrian Hillier, STFC-RAL)*
- 11:40-11:55 RIKEN *(Philip King, STFC-RAL)*
- 11:55-12:10 J-PARC *(Naritoshi Kawamura, J-PARC)*

Discussion – including updates on other facilities

12:30 **Lunch**

13:30 **Session 5: Novel applications of muons**

(Jamie Peck)

- 13:30-13:55 Muon tomography - monitoring carbon storage
(Jon Gluyas, University of Durham)
(Lee Thompson, University of Sheffield)
- 13:55-14:20 Probing muon error effects using facility beams
(Adrian Hillier, STFC-RAL)
- 14:20-14:45 Researching and commercialising muon tomography for security screening
(Michael Sossong, Decision Sciences)
- 14:45-15:10 Progress towards muon catalysed fusion
(Katsuhiko Ishida, RIKEN, on behalf of Teiichiro Matsuzaki, RIKEN)

Discussion

15:20 **Meeting Summary**

(Rob Edgecock, University of Huddersfield and STFC-RAL)

Coffee