

# **MAP 2014 Winter Meeting**

## **Report of Contributions**

Contribution ID: 0

Type: **not specified**

## Welcome

*Wednesday, 3 December 2014 10:00 (15 minutes)*

**Presenter:** Prof. HOLTKAMP, Norbert (SLAC)

**Session Classification:** Current Status & Recent Progress

Contribution ID: 1

Type: **not specified**

## **MICE Update**

*Wednesday, 3 December 2014 11:45 (50 minutes)*

**Presenter:** Dr PASTERNAK, Jaroslaw (Imperial College/RAF STFC)

**Session Classification:** Current Status & Recent Progress

Contribution ID: 2

Type: **not specified**

## Meeting organization issues

*Wednesday, 3 December 2014 12:35 (10 minutes)*

**Presenter:** MARKIEWICZ, Thomas (SLAC)

**Session Classification:** Current Status & Recent Progress

Contribution ID: 3

Type: **not specified**

## Program Status

*Wednesday, 3 December 2014 10:15 (1h 30m)*

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

**Session Classification:** Current Status & Recent Progress

Contribution ID: **18**

Type: **not specified**

## Discussion

Contribution ID: 19

Type: **not specified**

## **Muon Collider Perspectives**

*Wednesday, 3 December 2014 14:30 (40 minutes)*

**Presenter:** Dr PALMER, Robert B (Brookhaven National lab)

**Session Classification:** Perspectives & Looking Forward

Contribution ID: 20

Type: **not specified**

## Neutrino Physics Perspectives

*Wednesday, 3 December 2014 13:45 (45 minutes)*

**Presenter:** Prof. HUBER, Patrick (Virginia Tech)

**Session Classification:** Perspectives & Looking Forward



Contribution ID: 21

Type: **not specified**

## **Collider Detector & Background Issues**

*Wednesday, 3 December 2014 15:10 (45 minutes)*

**Presenter:** Dr LIPTON, Ronald (Fermilab)

**Session Classification:** Perspectives & Looking Forward

Contribution ID: 22

Type: **not specified**

## Introduction

*Friday, 5 December 2014 16:15 (5 minutes)*

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

**Session Classification:** Looking forward

Contribution ID: 23

Type: **not specified**

## **Invited seminar: Accelerator R&D panel recommendations**

*Friday, 5 December 2014 16:20 (45 minutes)*

**Presenter:** Prof. HARTILL, Don (Cornell University)

**Session Classification:** Looking forward

Contribution ID: 24

Type: **not specified**

## Q&A

*Friday, 5 December 2014 17:05 (10 minutes)*

**Session Classification:** Looking forward

Contribution ID: 25

Type: **not specified**

## **Invited inputs on GARD proposals**

*Sunday, 7 December 2014 09:00 (40 minutes)*

**Session Classification:** Opportunities for Muon Accelerator Research

Contribution ID: 26

Type: **not specified**

## **Inputs from the collaboration (5' each)**

*Sunday, 7 December 2014 09:40 (50 minutes)*

**Session Classification:** Opportunities for Muon Accelerator Research

Contribution ID: 27

Type: **not specified**

## Panel discussion

*Sunday, 7 December 2014 11:00 (45 minutes)*

**Presenters:** Prof. BROSS, Alan (Fermilab); Prof. KAPLAN, Daniel (Illinois Institute of Technology); DELAHAYE, Jean-Pierre (SLAC); Dr PALMER, Mark (Fermilab); Dr PALMER, Robert B (Brookhaven National lab); Dr RYNE, Robert (LBNL); Dr LIPTON, Ronald (Fermilab)

**Session Classification:** Discussion

Contribution ID: 28

Type: **not specified**

## Conclusion

*Sunday, 7 December 2014 12:05 (10 minutes)*

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

**Session Classification:** Discussion



Contribution ID: 29

Type: **not specified**

## Introduction

*Thursday, 4 December 2014 09:00 (15 minutes)*

**Presenter:** DELAHAYE, Jean-Pierre (SLAC)

**Session Classification:** MAP Design & Simulations: setting the stage

Contribution ID: **30**

Type: **not specified**

## **Overview of High intensity Muon Sources**

*Thursday, 4 December 2014 09:15 (20 minutes)*

**Presenter:** Dr STRATAKIS, Diktys (Brookhaven National Laboratory)

**Session Classification:** MAP Design & Simulations: setting the stage

Contribution ID: **31**

Type: **not specified**

## **Overview of Bright Muon Sources**

*Thursday, 4 December 2014 09:35 (20 minutes)*

**Presenter:** Dr SNOPOK, Pavel (IIT/Fermilab)

**Session Classification:** MAP Design & Simulations: setting the stage

Contribution ID: 32

Type: **not specified**

## **Overview of Acceleration and Muon Storage Rings**

*Thursday, 4 December 2014 09:55 (20 minutes)*

**Presenter:** Dr BOGACZ, Alex (Jefferson Lab)

**Session Classification:** MAP Design & Simulations: setting the stage

Contribution ID: 33

Type: **not specified**

## **Overview of Muon Collider Rings, MDI and Background Mitigation**

*Thursday, 4 December 2014 10:15 (20 minutes)*

**Presenter:** ALEXAHIN, Yuri (Fermilab)

**Session Classification:** MAP Design & Simulations: setting the stage

Contribution ID: 34

Type: **not specified**

## **Overall Discussion of MAP Design & Simulation**

*Thursday, 4 December 2014 10:35 (15 minutes)*

**Session Classification:** MAP Design & Simulations: setting the stage

Contribution ID: 35

Type: **not specified**

## **High Intensity Muon Source: Status & Future Plans**

*Thursday, 4 December 2014 11:10 (20 minutes)*

**Presenter:** Dr STRATAKIS, Diktys (Brookhaven National Laboratory)

**Session Classification:** High intensity muon sources

Contribution ID: **36**

Type: **not specified**

## **Proton Driver**

**Presenter:** Dr GOLLWITZER, Keith (Fermilab)



Contribution ID: 37

Type: **not specified**

## **Target Design & Optimization for an Intense Muon Source**

*Thursday, 4 December 2014 11:30 (15 minutes)*

**Presenter:** Dr DING, Xiaoping (UCLA)

**Session Classification:** High intensity muon sources

Contribution ID: **38**

Type: **not specified**

## **Capture, buncher & phase rotator system for an Intense Muon Source**

*Thursday, 4 December 2014 11:45 (20 minutes)*

**Presenter:** Dr NEUFFER, David (Fermilab)

**Session Classification:** High intensity muon sources

Contribution ID: 39

Type: **not specified**

## Chicane Design & Simulation Status

*Thursday, 4 December 2014 12:05 (20 minutes)*

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

**Session Classification:** High intensity muon sources

Contribution ID: 40

Type: **not specified**

## **Energy Deposition for Intense Muon Sources**

*Thursday, 4 December 2014 12:25 (20 minutes)*

**Presenter:** Dr SNOPOK, Pavel (IIT/Fermilab)

**Session Classification:** High intensity muon sources

Contribution ID: 41

Type: **not specified**

## **Overall Discussion of High Intensity Muon Sources**

*Thursday, 4 December 2014 12:45 (15 minutes)*

**Session Classification:** High intensity muon sources

Contribution ID: 42

Type: **not specified**

## Bright Muon Sources

**Presenter:** Dr SNOPOK, Pavel (IIT/Fermilab)

Contribution ID: 43

Type: **not specified**

## **Ionization Cooling Scheme of a Muon Collider**

*Thursday, 4 December 2014 14:00 (20 minutes)*

**Presenter:** Dr STRATAKIS, Diktys (Brookhaven National Laboratory)

**Session Classification:** High brightness muon sources

Contribution ID: 44

Type: **not specified**

## **Progress on the Helical Cooling Channel D&S**

*Thursday, 4 December 2014 14:20 (20 minutes)*

**Presenter:** YONEHARA, Katsuya (Fermilab)

**Session Classification:** High brightness muon sources



Contribution ID: 45

Type: **not specified**

## **Ionization Cooling for Muon Experiments**

*Thursday, 4 December 2014 14:40 (20 minutes)*

**Presenter:** ALEXAHIN, Yuri (Fermilab)

**Session Classification:** High brightness muon sources

Contribution ID: 46

Type: **not specified**

## **Overall Discussion of High Brightness Muon Sources**

Contribution ID: 47

Type: **not specified**

## **Acceleration Scheme for NuMAX**

*Thursday, 4 December 2014 16:10 (20 minutes)*

**Presenter:** Dr BOGACZ, Alex (Jefferson Lab)

**Session Classification:** Acceleration, storage rings & collider rings

Contribution ID: 48

Type: **not specified**

## **RLA to 63 GeV & beyond (RCS)**

*Thursday, 4 December 2014 16:30 (20 minutes)*

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

**Session Classification:** Acceleration, storage rings & collider rings

Contribution ID: 49

Type: **not specified**

## **Decay Ring Requirements for nuSTORM, RFFAG Ring**

*Thursday, 4 December 2014 16:50 (20 minutes)*

**Presenter:** Dr PASTERNAK, Jaroslaw (Imperial College/RAL-STFC)

**Session Classification:** Acceleration, storage rings & collider rings

Contribution ID: 50

Type: **not specified**

## **FFAG Ring for nuSTORM**

**Presenter:** TBD

Contribution ID: 51

Type: **not specified**

## NuMAX Decay Ring

*Thursday, 4 December 2014 17:10 (20 minutes)*

**Presenter:** Dr PASTERNAK, Jaroslaw (Imperial College/RAF STFC)

**Session Classification:** Acceleration, storage rings & collider rings

Contribution ID: 52

Type: **not specified**

## Muon Collider Ring

*Thursday, 4 December 2014 17:30 (20 minutes)*

**Presenter:** ALEXAHIN, Yuri (Fermilab)

**Session Classification:** Acceleration, storage rings & collider rings



Contribution ID: 53

Type: **not specified**

## **Overall Discussion of Acceleration, Storage Rings & Collider Rings**

*Thursday, 4 December 2014 17:50 (10 minutes)*

**Session Classification:** Acceleration, storage rings & collider rings

Contribution ID: 54

Type: **not specified**

## Status of the Muon Collider Design

*Friday, 5 December 2014 11:10 (30 minutes)*

**Presenter:** ALEXAHIN, Yuri (Fermilab)

**Session Classification:** Muon Colliders, MDI & Background Mitigation

Contribution ID: 55

Type: **not specified**

## **Development of a 6TeV Muon Collider Design**

*Friday, 5 December 2014 11:40 (20 minutes)*

**Presenter:** Dr WANG, Min-Huey (SLAC)

**Session Classification:** Muon Colliders, MDI & Background Mitigation

Contribution ID: 56

Type: **not specified**

## **Detector and Physics studies for a 1.5TeV Muon Collider Experiment**

*Friday, 5 December 2014 12:00 (35 minutes)*

**Presenter:** DI BENEDETTO, Vito (INFN-Lecce)

**Session Classification:** Muon Colliders, MDI & Background Mitigation

Contribution ID: 57

Type: **not specified**

## **MDI efforts at SLAC**

*Friday, 5 December 2014 12:35 (20 minutes)*

**Presenter:** MARKIEWICZ, Thomas (SLAC)

**Session Classification:** Muon Colliders, MDI & Background Mitigation

Contribution ID: 58

Type: **not specified**

## **Overall Discussion of Muon Colliders, MDI & Background Mitigation**

*Friday, 5 December 2014 12:55 (5 minutes)*

**Session Classification:** Muon Colliders, MDI & Background Mitigation

Contribution ID: 59

Type: **not specified**

## Physics case for 5 GeV Neutrino factory

*Friday, 5 December 2014 09:00 (25 minutes)*

**Presenter:** Prof. HUBER, Patrick (Virginia Tech)

**Session Classification:** Neutrino Factories (incl. nuSTORM) & detectors

Contribution ID: **60**

Type: **not specified**

## **Neutrino Interaction Physics at nuSTORM**

*Friday, 5 December 2014 09:25 (25 minutes)*

**Presenter:** Dr BAYES, Ryan (Glasgow)

**Session Classification:** Neutrino Factories (incl. nuSTORM) & detectors



Contribution ID: **61**

Type: **not specified**

## **Pion Decay Beam Sensitivities from nuSTORM**

**Presenter:** COLOMA, Pilar (Virginia Tech)

Contribution ID: 62

Type: **not specified**

## **nuSTORM Horn Optimization using Genetic Algorithm**

*Friday, 5 December 2014 09:50 (20 minutes)*

**Presenter:** Mr LIU, Ao (Indiana University/Fermilab)

**Session Classification:** Neutrino Factories (incl. nuSTORM) & detectors

Contribution ID: **63**

Type: **not specified**

## **Neutrino Flux at nuSTORM**

*Friday, 5 December 2014 10:30 (20 minutes)*

**Presenter:** Dr ADEY, David (Fermilab)

**Session Classification:** Neutrino Factories (incl. nuSTORM) & detectors

Contribution ID: **64**

Type: **not specified**

## **Overall Discussion of Neutrino Factories**

Contribution ID: 65

Type: **not specified**

## **MICE Support**

*Saturday, 6 December 2014 14:00 (30 minutes)*

**Session Classification:** MTA RF R&D I

Contribution ID: **66**

Type: **not specified**

## **Infrastructure**

*Saturday, 6 December 2014 14:30 (25 minutes)*

**Session Classification:** MTA RF R&D I

Contribution ID: **67**

Type: **not specified**

## **Physics**

*Saturday, 6 December 2014 14:55 (45 minutes)*

**Session Classification:** MTA RF R&D I

Contribution ID: **68**

Type: **not specified**

## **Instrumentation**

*Saturday, 6 December 2014 16:10 (25 minutes)*

**Session Classification:** MTA RF R&D II



Contribution ID: **69**

Type: **not specified**

## **Simulation Tools**

*Saturday, 6 December 2014 16:35 (25 minutes)*

**Session Classification:** MTA RF R&D II

Contribution ID: **70**

Type: **not specified**

## Results

*Saturday, 6 December 2014 17:00 (50 minutes)*

**Session Classification:** MTA RF R&D II

Contribution ID: 71

Type: **not specified**

## Discussion

*Saturday, 6 December 2014 15:40 (10 minutes)*

**Session Classification:** MTA RF R&D I

Contribution ID: 72

Type: **not specified**

## Discussion

*Saturday, 6 December 2014 17:50 (10 minutes)*

**Session Classification:** MTA RF R&D II

Contribution ID: 73

Type: **not specified**

## **Status of Spectrometer Systems**

*Saturday, 6 December 2014 09:20 (30 minutes)*

**Presenter:** Dr ADEY, David (Fermilab)

**Session Classification:** MICE Construction

Contribution ID: 74

Type: **not specified**

## **Status of RF for Step V'**

*Saturday, 6 December 2014 09:50 (30 minutes)*

**Presenter:** Dr LI, Derun (LBNL)

**Session Classification:** MICE Construction

Contribution ID: 75

Type: **not specified**

## **Status of PRY (IV & V')**

*Saturday, 6 December 2014 10:20 (30 minutes)*

**Presenter:** Dr WITTE, Holger (Brookhaven National Laboratory)

**Session Classification:** MICE Construction

Contribution ID: 77

Type: **not specified**

## Targetry

*Friday, 5 December 2014 14:00 (35 minutes)*

**Session Classification:** Technology R&D



Contribution ID: 78

Type: **not specified**

## **Rapid Cycling Magnets**

*Friday, 5 December 2014 14:35 (45 minutes)*

**Session Classification:** Technology R&D

Contribution ID: 79

Type: **not specified**

## High-Field Magnet Technology

*Friday, 5 December 2014 15:20 (20 minutes)*

**Session Classification:** Technology R&D

Contribution ID: **80**

Type: **not specified**

## **Overall Discussion about Technology R&D Session**

*Friday, 5 December 2014 15:40 (10 minutes)*

**Session Classification:** Technology R&D

Contribution ID: **81**

Type: **not specified**

## **MICE Project Managers' report**

*Saturday, 6 December 2014 09:00 (20 minutes)*

**Presenter:** Mr PREECE, Roy (STFC-RAL)

**Session Classification:** MICE Construction

Contribution ID: **82**

Type: **not specified**

## **Approaches to Final Cooling**

*Thursday, 4 December 2014 15:00 (20 minutes)*

**Presenter:** Dr NEUFFER, David (Fermilab)

**Session Classification:** High brightness muon sources

Contribution ID: **83**

Type: **not specified**

## **Mice Online Monitoring/Reconstruction and C&M**

*Saturday, 6 December 2014 11:10 (30 minutes)*

**Presenter:** HANLET, Pierrick (Illinois Institute of Technology/FNAL)

**Session Classification:** MICE Physics & Overview

Contribution ID: **84**

Type: **not specified**

## **MICE Software Overview**

*Saturday, 6 December 2014 11:40 (30 minutes)*

**Presenter:** RAJARAM, Durga (Illinois Institute of Technology)

**Session Classification:** MICE Physics & Overview

Contribution ID: 85

Type: **not specified**

## **MICE PID: You Can Tell a Muon But You Can't Tell It Much**

*Saturday, 6 December 2014 12:10 (25 minutes)*

**Presenter:** CREMALDI, Lucien (University of Mississippi)

**Session Classification:** MICE Physics & Overview



Contribution ID: **86**

Type: **not specified**

## **MICE Tracker Simulation and Reconstruction**

*Saturday, 6 December 2014 12:35 (25 minutes)*

**Presenter:** C.HEIDT (University California, Riverside)

**Session Classification:** MICE Physics & Overview

Contribution ID: **87**

Type: **not specified**

## **JINST MAP & MICE Dedicated Volume**

*Sunday, 7 December 2014 11:45 (20 minutes)*

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

**Session Classification:** Discussion

Contribution ID: **88**

Type: **not specified**

## **Bunch Merge**

*Thursday, 4 December 2014 15:20 (15 minutes)*

**Presenter:** Dr BAO, Yu (University of California Riverside)

**Session Classification:** High brightness muon sources

Contribution ID: **89**

Type: **not specified**

## **Final Cooling Update**

*Thursday, 4 December 2014 15:35 (15 minutes)*

**Presenter:** Dr SAYED, Hisham (Brookhaven National Laboratory)

**Session Classification:** High brightness muon sources

Contribution ID: **90**

Type: **not specified**

## **Neutrino flux at NuMAX**

*Friday, 5 December 2014 10:10 (20 minutes)*

**Presenter:** Dr PASTERNAK, Jaroslaw (Imperial College/RAF STFC)

**Session Classification:** Neutrino Factories (incl. nuSTORM) & detectors