

# MAP 2014 Spring Meeting



## Report of Contributions

Contribution ID: 0

Type: **not specified**

# Welcome

Contribution ID: 1

Type: **not specified**

## Welcome and Program Overview

*Tuesday, 27 May 2014 14:00 (45 minutes)*

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

**Session Classification:** Opening Plenary

Contribution ID: 2

Type: **not specified**

## **MASS Recommendations**

*Tuesday, 27 May 2014 14:45 (30 minutes)*

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

**Session Classification:** Opening Plenary

Contribution ID: 3

Type: **not specified**

## **Initial Baseline Selection Process**

*Tuesday, 27 May 2014 15:15 (30 minutes)*

**Presenter:** Dr RYNE, Robert (LBNL)

**Session Classification:** Opening Plenary

Contribution ID: 4

Type: **not specified**

## Technology Development

**Presenter:** KIRK, Harold (Brookhaven National Laboratory)

Contribution ID: 5

Type: **not specified**

## P5 Update

Contribution ID: 6

Type: **not specified**

## **Accelerator R&D Panel Update**



Contribution ID: 7

Type: **not specified**

## LHC Talk

Contribution ID: 8

Type: **not specified**

## **Future Very High Energy Colliders**

Contribution ID: 9

Type: **not specified**

## **MICE Experiment**

*Wednesday, 28 May 2014 08:50 (25 minutes)*

**Presenter:** Prof. KAPLAN, Daniel (Illinois Institute of Technology)

**Session Classification:** Plenary

Contribution ID: **10**

Type: **not specified**

## **MICE Construction**

*Wednesday, 28 May 2014 08:30 (20 minutes)*

**Presenter:** Prof. BROSS, Alan (Fermilab)

**Session Classification:** Plenary

Contribution ID: 11

Type: **not specified**

## **Charge to Working Groups**

*Wednesday, 28 May 2014 09:15 (5 minutes)*

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

**Session Classification:** Plenary

Contribution ID: 12

Type: **not specified**

## Cooling

Contribution ID: 13

Type: **not specified**

## P5 Update

*Tuesday, 27 May 2014 16:15 (25 minutes)*

**Presenter:** Dr LYKKEN, Joseph (Fermilab)

**Session Classification:** Opening Plenary

Contribution ID: 14

Type: **not specified**

## **Accelerator R&D Panel Update**

*Tuesday, 27 May 2014 17:05 (25 minutes)*

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

**Session Classification:** Opening Plenary



Contribution ID: 15

Type: **not specified**

## LHC Update

*Wednesday, 28 May 2014 08:00 (30 minutes)*

**Presenter:** Prof. ROSSI, Lucio (CERN)

**Session Classification:** Plenary

Contribution ID: 16

Type: **not specified**

## **Future High Energy Colliders**

*Tuesday, 27 May 2014 17:40 (50 minutes)*

**Presenter:** Dr EICHTEN, Estia (Fermilab)

**Session Classification:** Opening Plenary

Contribution ID: 17

Type: **not specified**

## **Proton Driver (12+3)**

*Saturday, 31 May 2014 08:30 (15 minutes)*

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

**Session Classification:** Plenary

Contribution ID: **18**

Type: **not specified**

## **Front End and Target (12+3)**

*Saturday, 31 May 2014 08:45 (15 minutes)*

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

**Session Classification:** Plenary

Contribution ID: 19

Type: **not specified**

## **Cooling (12+3)**

*Saturday, 31 May 2014 09:00 (15 minutes)*

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

**Session Classification:** Plenary

Contribution ID: 20

Type: **not specified**

## **Acceleration (12+3)**

*Saturday, 31 May 2014 09:15 (15 minutes)*

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

**Session Classification:** Plenary

Contribution ID: 21

Type: **not specified**

## **Neutrino Factory Rings (12+3)**

*Saturday, 31 May 2014 09:30 (15 minutes)*

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

**Session Classification:** Plenary

Contribution ID: 22

Type: **not specified**

## **Collider (12+3)**

*Saturday, 31 May 2014 09:45 (15 minutes)*

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

**Session Classification:** Plenary



Contribution ID: 23

Type: **not specified**

## **MDI (12+3)**

*Saturday, 31 May 2014 10:00 (15 minutes)*

**Presenter:** Dr MOKHOV, Nikolai (Fermilab)

**Session Classification:** Plenary

Contribution ID: 24

Type: **not specified**

## **Magnets (12+3)**

*Saturday, 31 May 2014 10:15 (15 minutes)*

**Presenter:** TOMPKINS, John (FNAL/TD/MSD)

**Session Classification:** Plenary

Contribution ID: 25

Type: **not specified**

## **RF (12+3)**

*Saturday, 31 May 2014 10:30 (15 minutes)*

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

**Session Classification:** Plenary

Contribution ID: 26

Type: **not specified**

## MICE

*Saturday, 31 May 2014 11:15 (15 minutes)*

**Presenter:** Prof. KAPLAN, Daniel (Illinois Institute of Technology)

**Session Classification:** Plenary

Contribution ID: 27

Type: **not specified**

## **NF Physics**

*Saturday, 31 May 2014 11:30 (30 minutes)*

**Presenter:** Prof. LONG, Kenneth (Imperial College London)

**Session Classification:** Plenary

Contribution ID: **28**

Type: **not specified**

## **Collider Physics**

*Saturday, 31 May 2014 12:00 (30 minutes)*

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

**Session Classification:** Plenary

Contribution ID: 29

Type: **not specified**

## **Closing Remarks and Plans for Fall-Winter Meeting and Farewell**

*Saturday, 31 May 2014 12:30 (30 minutes)*

**Presenters:** DELAHAYE, Jean-Pierre (SLAC); Dr PALMER, Mark (Fermilab)

**Session Classification:** Plenary

Contribution ID: **30**

Type: **not specified**

## **Plans for Fall-Winter Meeting and Farewell**



Contribution ID: **31**

Type: **not specified**

## **Spectrometer Solenoids Status**

*Friday, 30 May 2014 10:45 (25 minutes)*

**Presenter:** VIROSTEK, Steve (Lawrence Berkeley National Lab)

**Session Classification:** MICE

Contribution ID: 32

Type: **not specified**

## **Coupling coil test program**

*Friday, 30 May 2014 11:10 (25 minutes)*

**Presenter:** Dr TARTAGLIA, Michael (Fermilab Technical Division Magnet Systems Department Measurements and Analysis Group)

**Session Classification:** MICE

Contribution ID: 33

Type: **not specified**

## **RFCC build overview**

*Friday, 30 May 2014 11:55 (25 minutes)*

**Presenter:** Dr PRESTEMON, Soren (Lawrence Berkeley National Laboratory)

**Session Classification:** MICE

Contribution ID: **34**

Type: **not specified**

## **Discussion**

*Friday, 30 May 2014 12:20 (10 minutes)*

**Session Classification:** MICE

Contribution ID: 35

Type: **not specified**

## **MICE Step IV Physics Deliverables**

*Friday, 30 May 2014 13:30 (30 minutes)*

by phone

**Presenter:** Dr BLACKMORE, Victoria (Univ. of Oxford)

**Session Classification:** MICE

Contribution ID: 36

Type: **not specified**

## **Status of Analysis & Simulation Code**

*Friday, 30 May 2014 14:00 (30 minutes)*

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

**Session Classification:** MICE

Contribution ID: 37

Type: **not specified**

## Status of PID

*Friday, 30 May 2014 14:30 (30 minutes)*

**Presenter:** Prof. CREMALDI, Lucien (Univ. of Mississippi)

**Session Classification:** MICE

Contribution ID: **38**

Type: **not specified**

## **Ckov Update**

*Friday, 30 May 2014 15:00 (15 minutes)*

**Presenters:** Mr DREWS, Michael (Illinois Institute of Technology); Mr WINTER, Miles (Illinois Institute of Technology)

**Session Classification:** MICE



Contribution ID: 39

Type: **not specified**

## Discussion

*Friday, 30 May 2014 15:15 (15 minutes)*

**Session Classification:** MICE

Contribution ID: 40

Type: **not specified**

## Mapping of MICE Magnets

*Friday, 30 May 2014 16:00 (20 minutes)*

**Presenter:** LEONOVA, Maria (Fermilab)

**Session Classification:** MICE

Contribution ID: 41

Type: **not specified**

## Tracker Status

*Friday, 30 May 2014 16:20 (30 minutes)*

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

**Session Classification:** MICE

Contribution ID: 42

Type: **not specified**

## **Status of On-Line and C&M Systems**

*Friday, 30 May 2014 16:50 (30 minutes)*

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

**Session Classification:** MICE

Contribution ID: 43

Type: **not specified**

## **Planning for MICE Operations**

*Friday, 30 May 2014 17:20 (20 minutes)*

**Presenter:** Prof. LONG, Kenneth (Imperial College London)

**Session Classification:** MICE

Contribution ID: 44

Type: **not specified**

## Discussion

*Friday, 30 May 2014 17:40 (20 minutes)*

**Session Classification:** MICE

Contribution ID: 45

Type: **not specified**

## **Muon Collider design**

*Thursday, 29 May 2014 08:30 (30 minutes)*

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

**Session Classification:** Collider

Contribution ID: 46

Type: **not specified**

## **Crystal-assisted halo cleaning**

**Presenter:** Dr TIKHOMIROV, Victor (INP BSU)



Contribution ID: 47

Type: **not specified**

## **SLAC effort in the collider design**

*Thursday, 29 May 2014 09:15 (20 minutes)*

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

**Session Classification:** Collider

Contribution ID: 48

Type: **not specified**

## Discussion

*Thursday, 29 May 2014 09:35 (40 minutes)*

**Session Classification:** Collider

Contribution ID: 49

Type: **not specified**

## **Higgs Factory magnet protection and MDI**

*Thursday, 29 May 2014 10:45 (25 minutes)*

**Presenter:** Dr MOKHOV, Nikolai (Fermilab)

**Session Classification:** Collider

Contribution ID: 50

Type: **not specified**

## **Impedance issues**

*Thursday, 29 May 2014 09:00 (15 minutes)*

**Presenter:** Mr BUROV, Alexey (AD/RR)

**Session Classification:** Collider

Contribution ID: 51

Type: **not specified**

## Magnets

*Thursday, 29 May 2014 11:10 (25 minutes)*

**Presenter:** Dr ZLOBIN, Alexander (Fermilab)

**Session Classification:** Collider

Contribution ID: 52

Type: **not specified**

## **Initial calculations for a e+ based Muon source via e+e- -> mu+mu-**

*Thursday, 29 May 2014 11:35 (20 minutes)*

**Presenter:** KELLER, Lewis (SLAC National Accelerator Laboratory)

**Session Classification:** Collider

Contribution ID: 53

Type: **not specified**

## Discussion

*Thursday, 29 May 2014 11:55 (35 minutes)*

**Session Classification:** Collider

Contribution ID: 54

Type: **not specified**

## Detector issues

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



Contribution ID: 55

Type: **not specified**

## Higgs Factory backgrounds

*Thursday, 29 May 2014 13:50 (25 minutes)*

**Presenter:** Dr STRIGANOV, Sergei (Fermilab)

**Session Classification:** MDI

Contribution ID: 56

Type: **not specified**

## **Reduction of background readout in Si Tracker**

*Thursday, 29 May 2014 14:15 (20 minutes)*

**Presenter:** TARENTIEV, Nikolai (Carnegie Mellon U, USA)

**Session Classification:** MDI

Contribution ID: 57

Type: **not specified**

## Computational issues

*Thursday, 29 May 2014 14:35 (20 minutes)*

**Presenters:** Dr MOKHOV, Nikolai (Fermilab); Dr STRIGANOV, Sergei (Fermilab)

**Session Classification:** MDI

Contribution ID: 58

Type: **not specified**

## Discussion

*Thursday, 29 May 2014 14:55 (35 minutes)*

**Session Classification:** MDI

Contribution ID: 59

Type: **not specified**

## **Magnet Issues for Acceleration (10+5)**

*Friday, 30 May 2014 16:00 (15 minutes)*

will give a discussion of the magnet issues of importance for acceleration, but will focus on the pulsed dipoles, as will the remaining talks. I will describe the parameters being used for doing the preliminary magnet studies.

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

**Session Classification:** Acceleration

Contribution ID: **60**

Type: **not specified**

## **HTS Driven Pulsed Dipoles (20+5)**

*Friday, 30 May 2014 16:15 (25 minutes)*

The goal of this talk (and the next) is to present the design ideas that have been discussed for these magnets. I hope the speakers will discuss the reasons they make the design choices they do and why they expect this to be beneficial for the machines, as well as explaining the underlying physics/material behavior/etc. where appropriate; this will help with the subsequent discussion.

**Presenter:** Dr PIEKARZ, Henryk (Fermilab)

**Session Classification:** Acceleration

Contribution ID: 61

Type: **not specified**

## **Pulsed Dipole Design (20+5)**

*Friday, 30 May 2014 16:40 (25 minutes)*

The goal of this talk (and the previous) is to present the design ideas that have been discussed for these magnets. I hope the speakers will discuss the reasons they make the design choices they do and why they expect this to be beneficial for the machines, as well as explaining the underlying physics/material behavior/etc. where appropriate; this will help with the subsequent discussion.

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

**Session Classification:** Acceleration

Contribution ID: 62

Type: **not specified**

## **Experimental Pulsed Dipole Work at U. Mississippi (10+5)**

*Friday, 30 May 2014 17:05 (15 minutes)*

**Presenter:** Prof. SUMMERS, Don (Univ. of Mississippi)

**Session Classification:** Acceleration



Contribution ID: 63

Type: **not specified**

## Discussion

*Friday, 30 May 2014 17:20 (40 minutes)*

Discussion time for some back-and-forth for everyone to try to understand the ideas coming out of this design work. This is arguably the most important part of the session, so I would appreciate speakers keeping to time (says the guy with the first talk...). The "+5" in the times above is for direct questions to clarify something that was in the speakers talk; more detailed discussion will occur after all the talks are complete.

**Session Classification:** Acceleration

Contribution ID: 64

Type: **not specified**

## Colloquium: Concepts for a Staged Muon Accelerator Facility

*Wednesday, 28 May 2014 16:00 (1 hour)*

Muon-based facilities offer a unique potential to provide capabilities at both the Intensity Frontier with Neutrino Factories and the Energy Frontier with Muon Colliders ranging from the Higgs energy to the multi-TeV energy range. They rely on novel technology with challenging parameters, which are currently being evaluated by the U.S. Muon Accelerator Program (MAP). A realistic scenario for a complementary series of staged facilities with increasing complexity and significant physics potential at each stage has been developed. It takes advantage of and leverages the capabilities already planned for Fermilab, especially the Proton Improvement Plan (PIP) and LBNE. Each stage is defined in such a way to provide an R&D platform to validate the technologies required for subsequent stages. The rationale and sequence of the staging process, as well as the critical issues to be addressed at each stage, are presented.

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

Contribution ID: 65

Type: **not specified**

## **MTA Experimental Program and Plans (10+5)**

*Friday, 30 May 2014 08:30 (15 minutes)*

**Presenter:** Prof. TORUN, Yagmur (Illinois Institute of Technology)

**Session Classification:** MTA/RF Experimental Program

Contribution ID: **66**

Type: **not specified**

## **Modular cavity and test plan (10+5)**

*Friday, 30 May 2014 08:45 (15 minutes)*

**Presenter:** BOWRING, Daniel (Fermilab)

**Session Classification:** MTA/RF Experimental Program

Contribution ID: 67

Type: **not specified**

## **MICE Prototype Cavity Progress at MTA (10+5)**

*Friday, 30 May 2014 09:00 (15 minutes)*

**Presenter:** Mr PASQUINELLI, Ralph (Fermilab)

**Session Classification:** MTA/RF Experimental Program

Contribution ID: **68**

Type: **not specified**

## **Update on Gridded Window Tests (10+5)**

*Friday, 30 May 2014 09:15 (15 minutes)*

**Presenter:** MORETTI, Alfred (Fermilab)

**Session Classification:** MTA/RF Experimental Program

Contribution ID: **69**

Type: **not specified**

## **Dielectric Loaded HPRF Cavity Program Update (10+5)**

*Friday, 30 May 2014 09:30 (15 minutes)*

**Presenter:** Dr FREEMIRE, Ben (IIT)

**Session Classification:** MTA/RF Experimental Program

Contribution ID: 70

Type: **not specified**

## **Update of All-Season Cavity (10+5)**

*Friday, 30 May 2014 09:45 (15 minutes)*

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

**Session Classification:** MTA/RF Experimental Program



Contribution ID: 71

Type: **not specified**

## Discussion

*Friday, 30 May 2014 10:00 (15 minutes)*

**Session Classification:** MTA/RF Experimental Program

Contribution ID: 72

Type: **not specified**

## **The Fermilab Perspective**

*Tuesday, 27 May 2014 16:40 (25 minutes)*

**Presenter:** Dr LOCKYER, Nigel (Fermilab)

**Session Classification:** Opening Plenary

Contribution ID: 73

Type: **not specified**

## **Possible Path from nuSTORM to NuMAX**

*Friday, 30 May 2014 08:30 (25 minutes)*

**Presenter:** Dr ANKENBRANDT, Charles (Muons, Inc.)

**Session Classification:** Decay Ring

Contribution ID: 74

Type: **not specified**

## **Common Technologies/Components in Both Rings**

*Friday, 30 May 2014 08:55 (25 minutes)*

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

**Session Classification:** Decay Ring

Contribution ID: 75

Type: **not specified**

## Discussion

*Friday, 30 May 2014 09:20 (55 minutes)*

**Session Classification:** Decay Ring

Contribution ID: 76

Type: **not specified**

## **First-cut Lattice Design for NuMAX Decay Ring**

*Thursday, 29 May 2014 13:30 (25 minutes)*

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

**Session Classification:** Decay Ring

Contribution ID: 77

Type: **not specified**

## **Racetrack FFAG Lattice for nuSTORM Decay Ring**

*Thursday, 29 May 2014 13:55 (25 minutes)*

**Presenter:** Dr LAGRANGE, jean-baptiste (Imperial College/Fermilab)

**Session Classification:** Decay Ring

Contribution ID: 78

Type: **not specified**

## **Pion Collection Horn - Optimization**

*Thursday, 29 May 2014 14:20 (25 minutes)*

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

**Session Classification:** Decay Ring



Contribution ID: 79

Type: **not specified**

## **Discussion (led by A. Valishev): Can concepts from integrable optics be applied to the nuSTORM decay ring design?**

*Thursday, 29 May 2014 14:45 (45 minutes)*

**Session Classification:** Decay Ring

Contribution ID: **80**

Type: **not specified**

## **VCC update (25+5)**

*Wednesday, 28 May 2014 10:15 (30 minutes)*

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

**Session Classification:** Cooling

Contribution ID: **81**

Type: **not specified**

## **HCC update (25+5)**

*Wednesday, 28 May 2014 10:45 (30 minutes)*

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

**Session Classification:** Cooling

Contribution ID: 82

Type: **not specified**

## **High field cooling channel for micron scale emittances (20+5)**

*Thursday, 29 May 2014 08:15 (25 minutes)*

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

**Session Classification:** Cooling

Contribution ID: **83**

Type: **not specified**

## **Discussion**

*Wednesday, 28 May 2014 12:15 (15 minutes)*

**Session Classification:** Cooling

Contribution ID: **84**

Type: **not specified**

## **RF issues relevant for HCC/VCC (25+5)**

*Wednesday, 28 May 2014 11:15 (30 minutes)*

**Presenter:** TOLLESTRUP, Alvin (FNAL)

**Session Classification:** Cooling

Contribution ID: **85**

Type: **not specified**

## **Vacuum RF update/Be windows (25+5)**

*Wednesday, 28 May 2014 11:45 (30 minutes)*

**Presenters:** BOWRING, Daniel (Fermilab); LUO, Tianhuan (LBL)

**Session Classification:** Cooling

Contribution ID: **86**

Type: **not specified**

## **Magnet requirements and limitations (25+5)**

*Wednesday, 28 May 2014 13:30 (30 minutes)*

**Presenter:** Dr PRESTEMON, Soren (Lawrence Berkeley National Laboratory)

**Session Classification:** Cooling



Contribution ID: 87

Type: **not specified**

## **Be windows (10+5)**

**Presenter:** LUO, Tianhuan (LBL)

Contribution ID: **88**

Type: **not specified**

## **Conceptual Picture of the HCC Magnet System (20+5)**

*Wednesday, 28 May 2014 14:35 (25 minutes)*

**Presenter:** KAHN, Stephen (Muons Inc)

**Session Classification:** Cooling

Contribution ID: **89**

Type: **not specified**

## **HCC magnets update (10+5)**

Contribution ID: **90**

Type: **not specified**

## **Gas-plasma simulations (10+5)**

**Presenter:** CHUNG, Moses (Fermilab)

Contribution ID: **91**

Type: **not specified**

## Discussion

Contribution ID: 92

Type: **not specified**

## **Initial (25+5)**

*Wednesday, 28 May 2014 17:15 (30 minutes)*

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

**Session Classification:** Cooling

Contribution ID: 93

Type: **not specified**

## **Charge separation (20+5)**

*Thursday, 29 May 2014 08:40 (25 minutes)*

**Presenter:** YOSHIKAWA, Cary (Muons, Inc.)

**Session Classification:** Cooling

Contribution ID: 94

Type: **not specified**

## **Vacuum RF bunch merge (20+5)**

*Thursday, 29 May 2014 09:30 (25 minutes)*

**Presenters:** Dr PALMER, Robert B (Brookhaven National lab); BAO, Yu (University of California Riverside)

**Session Classification:** Cooling



Contribution ID: 95

Type: **not specified**

## **Helical bunch merge (20+5)**

*Thursday, 29 May 2014 09:05 (25 minutes)*

**Presenters:** SY, Amy (JLab); YOSHIKAWA, Cary (Muons, Inc.)

**Session Classification:** Cooling

Contribution ID: 96

Type: **not specified**

## **Muon Emittance Exchange with a Skew Quad Triplet (15+5)**

*Thursday, 29 May 2014 09:55 (20 minutes)*

**Primary author:** Prof. SUMMERS, Don (Univ. of Mississippi)

**Co-author:** Dr HART, Terrence (University of Mississippi)

**Presenters:** Prof. SUMMERS, Don (Univ. of Mississippi); Dr HART, Terrence (University of Mississippi)

**Session Classification:** Cooling

Contribution ID: 97

Type: **not specified**

## Status of Partial Return Yoke

*Friday, 30 May 2014 11:35 (20 minutes)*

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

**Session Classification:** MICE

Contribution ID: **98**

Type: **not specified**

## **Acceleration concept specifications (15+5)**

*Friday, 30 May 2014 10:45 (20 minutes)*

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

**Session Classification:** Acceleration

Contribution ID: 99

Type: **not specified**

## **NuMAX Acceleration (25+5)**

*Friday, 30 May 2014 11:05 (30 minutes)*

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

**Session Classification:** Acceleration

Contribution ID: **100**

Type: **not specified**

## **H- compatibility issues in the dual-use NuMAX linac (15+5)**

*Friday, 30 May 2014 11:35 (20 minutes)*

**Presenter:** Dr ANKENBRANDT, Charles (Muons, Inc.)

**Session Classification:** Acceleration

Contribution ID: **101**

Type: **not specified**

## Discussion

*Friday, 30 May 2014 11:55 (35 minutes)*

Important goal is to look at H- stripping in the shared proton driver/ NuMAX linac.

**Session Classification:** Acceleration

Contribution ID: **102**

Type: **not specified**

## **RF for Acceleration (15+5)**

*Friday, 30 May 2014 13:30 (20 minutes)*

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

**Session Classification:** Acceleration



Contribution ID: **103**

Type: **not specified**

## **SRF R&D (25+5)**

*Friday, 30 May 2014 13:50 (30 minutes)*

**Presenter:** Dr FURUTA, Fumio (Cornell University - CLASSE)

**Session Classification:** Acceleration

Contribution ID: **104**

Type: **not specified**

## **TBD Title: Cooling RF (25+5)**

**Presenter:** LUO, Tianhuan (LBL)

Contribution ID: **105**

Type: **not specified**

## **Discussion**

*Friday, 30 May 2014 14:50 (40 minutes)*

**Session Classification:** Acceleration

Contribution ID: **106**

Type: **not specified**

## **Front-End Status (20+5)**

*Thursday, 29 May 2014 10:45 (25 minutes)*

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

**Session Classification:** Front End

Contribution ID: **107**

Type: **not specified**

## **Muon Capture Optimization (30+5)**

*Thursday, 29 May 2014 11:10 (35 minutes)*

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

**Session Classification:** Front End

Contribution ID: **108**

Type: **not specified**

## **Discussion**

*Thursday, 29 May 2014 11:45 (45 minutes)*

**Session Classification:** Front End

Contribution ID: **109**

Type: **not specified**

## **High Power Target Workshop Summary (20+5)**

*Thursday, 29 May 2014 13:30 (25 minutes)*

**Presenter:** Mr HURH, Patrick (FNAL)

**Session Classification:** Front End

Contribution ID: **110**

Type: **not specified**

## **Carbon Target Optimization (20+5)**

*Thursday, 29 May 2014 13:55 (25 minutes)*

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

**Session Classification:** Front End



Contribution ID: 111

Type: **not specified**

## **RF requirement for FE (20+5)**

*Thursday, 29 May 2014 14:20 (25 minutes)*

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

**Session Classification:** Front End

Contribution ID: **112**

Type: **not specified**

## **Discussion**

*Thursday, 29 May 2014 14:45 (45 minutes)*

**Session Classification:** Front End

Contribution ID: **113**

Type: **not specified**

## **Target Overview (20+5)**

*Friday, 30 May 2014 08:30 (25 minutes)*

**Presenter:** Prof. MCDONALD, Kirk (Princeton University)

**Session Classification:** Front End

Contribution ID: 114

Type: **not specified**

## **Chicane Optimization (20+5)**

*Friday, 30 May 2014 08:55 (25 minutes)*

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

**Session Classification:** Front End

Contribution ID: 115

Type: **not specified**

## **Energy Deposition Discussion**

*Friday, 30 May 2014 09:20 (55 minutes)*

**Session Classification:** Front End

Contribution ID: **116**

Type: **not specified**

## **Proton Driver Rings Overview and Magnet List (20+20)**

*Wednesday, 28 May 2014 10:15 (40 minutes)*

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

**Session Classification:** Proton Driver

Contribution ID: 117

Type: **not specified**

## **Discussion of Multi-beam Final Focus onto Target (40)**

*Wednesday, 28 May 2014 11:50 (40 minutes)*

**Session Classification:** Proton Driver

Contribution ID: **118**

Type: **not specified**

## **Proton Driver - Target System Interfaces**

*Wednesday, 28 May 2014 10:55 (15 minutes)*

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

**Session Classification:** Proton Driver



Contribution ID: **119**

Type: **not specified**

## Overview of Target Station

*Wednesday, 28 May 2014 11:10 (20 minutes)*

by phone

**Presenter:** Prof. MCDONALD, Kirk (Princeton University)

**Session Classification:** Proton Driver

Contribution ID: **120**

Type: **not specified**

## **Discussion of Interfaces**

*Wednesday, 28 May 2014 11:30 (20 minutes)*

**Session Classification:** Proton Driver

Contribution ID: 121

Type: **not specified**

## **Initial look at Proton Driver Rings' Instabilities (20+20)**

*Wednesday, 28 May 2014 13:30 (40 minutes)*

**Presenter:** Mr BUROV, Alexey (AD/RR)

**Session Classification:** Proton Driver

Contribution ID: 122

Type: **not specified**

## **Overview of Existing Injection & Painting Schemes (20+20)**

*Wednesday, 28 May 2014 14:10 (40 minutes)*

**Presenter:** JOHNSON, David (Fermilab)

**Session Classification:** Proton Driver

Contribution ID: 123

Type: **not specified**

## **H- stripping (20+20)**

*Wednesday, 28 May 2014 14:50 (40 minutes)*

**Session Classification:** Proton Driver

Contribution ID: **124**

Type: **not specified**

## **Higgs Studies**

*Friday, 30 May 2014 10:45 (40 minutes)*

**Presenter:** LIU, Zhen (PITT-PACC, Department of Physics & Astronomy, University of Pittsburgh)

**Session Classification:** Collider Physics

Contribution ID: 125

Type: **not specified**

## **SUSY Status - Implications for a High Energy Muon Collider**

*Friday, 30 May 2014 11:25 (40 minutes)*

**Presenter:** MARTIN, Adam (Notre Dame Univ.)

**Session Classification:** Collider Physics

Contribution ID: 126

Type: **not specified**

## Discussion

*Friday, 30 May 2014 12:05 (25 minutes)*

**Session Classification:** Collider Physics



Contribution ID: 127

Type: **not specified**

## **Higgs Factory background studies at SLAC**

*Thursday, 29 May 2014 13:30 (20 minutes)*

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

**Session Classification:** MDI

Contribution ID: 128

Type: **not specified**

## Evolution of the Neutrino Factory Concept: from IDS-NF to nuSTORM and NuMAX

*Thursday, 29 May 2014 16:00 (1 hour)*

The International Design Study for a Neutrino Factory (IDS-NF) has been an international multi-disciplinary effort that has been considering the best possible design for a Neutrino Factory, a neutrino beam facility from the decay of muons for the study of neutrino oscillations, with the ultimate goal of discovering CP violation in the neutrino sector. In this talk, I will summarise the evolution of the Neutrino Factory concept derived from the 10 GeV muon beam IDS-NF, which provides the best possible sensitivity for the discovery of CP violation in the neutrino sector, towards a realistic staging scenario, which would include as a first stage the nuSTORM (Neutrinos from STORed Muons) facility and would evolve towards a 5 GeV muon facility (NuMAX) that has the potential to discover CP violation in the neutrino sector. The physics reach of each of the facilities will be discussed.

**Presenter:** Dr SOLER, Paul (University of Glasgow)

**Session Classification:** Plenary

Contribution ID: **129**

Type: **not specified**

## **IBS Discussion Session**

*Wednesday, 28 May 2014 17:45 (45 minutes)*

**Session Classification:** Cooling

Contribution ID: 130

Type: **not specified**

## **Field performance vs. geometric constraints of Helical Solenoids (30+5)**

*Wednesday, 28 May 2014 14:00 (35 minutes)*

**Presenter:** Dr LOPES, Mauricio (Fermilab)

**Session Classification:** Cooling

Contribution ID: **131**

Type: **not specified**

## **Discussion**

*Wednesday, 28 May 2014 15:00 (30 minutes)*

**Session Classification:** Cooling

Contribution ID: 132

Type: **not specified**

## **Compatibility of RF for Proton and Muon Beams (25+5)**

*Friday, 30 May 2014 14:20 (30 minutes)*

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

**Session Classification:** Acceleration

Contribution ID: 133

Type: **not specified**

## **805 MHz Modular Cavity Design**

*Thursday, 29 May 2014 17:30 (45 minutes)*

**Presenter:** HAASE, Andrew (SLAC)

**Session Classification:** 805 MHz Modular Cavity Design Review

Contribution ID: 134

Type: **not specified**

## **Physics case for long-baseline oscillation measurements**

*Wednesday, 28 May 2014 10:15 (30 minutes)*

**Presenter:** PARKE, Stephen (Fermilab)

**Session Classification:** Neutrinos



Contribution ID: 135

Type: **not specified**

## **Physics case for short-baseline oscillation measurements**

*Wednesday, 28 May 2014 10:45 (30 minutes)*

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

**Session Classification:** Neutrinos

Contribution ID: 136

Type: **not specified**

## **Physics for cross section measurements**

*Wednesday, 28 May 2014 11:15 (30 minutes)*

**Session Classification:** Neutrinos

Contribution ID: **137**

Type: **not specified**

## **Discussion**

*Wednesday, 28 May 2014 11:45 (45 minutes)*

**Session Classification:** Neutrinos

Contribution ID: **138**

Type: **not specified**

## **Status of nuSTORM flux**

*Wednesday, 28 May 2014 13:30 (30 minutes)*

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

**Session Classification:** Neutrinos

Contribution ID: **139**

Type: **not specified**

## **nuSTORM facility update**

*Wednesday, 28 May 2014 14:00 (30 minutes)*

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

**Session Classification:** Neutrinos

Contribution ID: **140**

Type: **not specified**

## **RFFAG option for nuSTORM**

*Wednesday, 28 May 2014 14:30 (30 minutes)*

**Presenter:** Dr LAGRANGE, jean-baptiste (Imperial College/Fermilab)

**Session Classification:** Neutrinos

Contribution ID: **141**

Type: **not specified**

## **Neutrino interaction physics at nuSTORM**

*Wednesday, 28 May 2014 15:00 (30 minutes)*

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

**Session Classification:** Neutrinos

Contribution ID: 142

Type: **not specified**

## **Pion decay beam sensitivities from NuSTORM**

*Thursday, 29 May 2014 08:30 (15 minutes)*

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

**Session Classification:** Neutrinos



Contribution ID: 143

Type: **not specified**

## **Discussion: New physics searches**

*Thursday, 29 May 2014 08:45 (45 minutes)*

**Session Classification:** Neutrinos

Contribution ID: 144

Type: **not specified**

## **Discussion: Needs for detector R&D**

*Thursday, 29 May 2014 09:30 (45 minutes)*

**Session Classification:** Neutrinos

Contribution ID: 145

Type: **not specified**

## **ILCRoot Studies of a High Energy Muon Collider**

*Friday, 30 May 2014 13:30 (45 minutes)*

**Presenter:** Dr MAZZACANE, Anna (Fermilab)

**Session Classification:** Collider Physics

Contribution ID: 146

Type: **not specified**

## **Simulations of the Muon Collider**

*Friday, 30 May 2014 14:15 (45 minutes)*

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

**Session Classification:** Collider Physics

Contribution ID: 147

Type: **not specified**

## **Detector Simulation/Higgs Studies**

*Friday, 30 May 2014 15:00 (30 minutes)*

**Primary author:** Dr WENZEL, Hans (Fermilab)

**Presenter:** Dr WENZEL, Hans (Fermilab)

**Session Classification:** Collider Physics

Contribution ID: 148

Type: **not specified**

## Discussion of Future Plans

*Friday, 30 May 2014 16:00 (1 hour)*

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

**Session Classification:** Collider Physics

Contribution ID: 149

Type: **not specified**

## **MAP Response and Introduction**

*Tuesday, 27 May 2014 17:30 (10 minutes)*

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

**Session Classification:** Opening Plenary