

MUSE Outreach & Dissemination status

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MUSE meeting, 20 December 2018

Updates since April MUSE presentation

Outreach

- ▶ report on UK masterclasses (deliverable D5.3) has been delivered by end April by Barry King
- ▶ FNAL summer students training has been done in August by MUSE Mu2e collaborators

Dissemination

- ▶ talks and papers are reported on the MUSE web site
<http://muse.lnf.infn.it/events/category/talks/>, <http://muse.lnf.infn.it/paper/>,

Tasks and Deliverables

Tasks

Task 5.1: MUSE Workshop day (ALL) At the same time as the MUSE annual general meeting, we will organize a one-day workshop. The target of the seminars and lectures given by the MUSE researchers will be university students in physics, engineering and computing science and, possibly, technical high school students at the last year. MUSE laboratories will be open for demonstrations.

Task 5.2: MUSE Open day (INFN, HZDR) The MUSE partners already take part in the “European Researchers Night” and “Night of Science”. To coincide with this event, all the MUSE laboratories at INFN and HZDR will be open to the general public to show and discuss the results of our research. We will prepare posters and brief interactive simulations on the computer.

Task 5.3: Annual Physics Meeting at LNF (INFN) The target of this three-day event is high school teachers and the goal is to give information on the recent advancements in the field of sub-nuclear and nuclear physics and detector developments. A special effort will be made to prepare experiments which involve the new detector components developed by the MUSE project.

Task 5.4: Coordination of UK outreach activities (UCL, LIV) Liverpool and UCL MUSE collaborators organize “masterclasses” for high-school students, with tour of the laboratory facilities and hands-on measurement using prototypes of the g-2 straw trackers, exhibits for the annual Royal Society Show and Big Bang Fair, dedicated work-experience placements for high-school students on detec-

tor development and high-level software.

Task 5.5: Summer School at Fermi National Accelerator Laboratory (ALL) The MUSE researchers seconded at FNAL will organize a three-day training on the MUSE research activities for all the students of the FNAL European Master Degree, organized by INFN and the University of Pisa. We will make an effort to give the students the opportunity to meet CAEN and PRISMA researchers and discuss the prospects of working on research and development in European private companies.

Task 5.6: Outreach web site (ALL) We will develop a public section of the web site with a detailed description of the MUSE project and with all the information for the general public. This work package foresees one secondment for each year, to coordinate the activities connected to the Summer School at FNAL.

Deliverables

D5.1 : MUSE @ HZDR open day [month 9] MUSE laboratories opened to the general public

D5.2: Annual Physics Meetings [month 22] Experiments prepared for the LNF three-day event for high school teachers

D5.3: Masterclasses [month 28] Masterclasses for high-school students, with tour of the laboratory facilities and hands-on measurement using prototypes of the g-2 straw trackers

D5.4: FNAL Summer School [month 44] Three-day training on the MUSE research activities for all the students of the FNAL European Master Degree

August 2018 FNAL summer students training

Organized by:

Young Mu2e

MUSE 

The Mu2e Experiment

2018 Training Lectures for the students of the Summer School "Summer Students at Fermilab and other US laboratories" (Fermilab, INFN and the University of Pisa)

Lectures

Friday, August 10 – Wilson Hall

Morning Session: Black Hole (WH2NW)

- 10:00 – 10:40 M. Kargiantoulakis, "The Mu2e Experiment at Fermilab"
- 10:40 – 11:20 M. Yucel, "The Mu2e tracker system"
- 11:20 – 12:00 A. Edmonds, "Mu2e software tools"

Afternoon Session: Curia II (WH2SW)

- 14:00 – 14:40 D. Caiulo, "The Mu2e crystal calorimeter"
- 14:40 – 15:20 Y. Oksuzian "The Mu2e Cosmic Ray Veto"
- 15:20 – 16:00 G. Pezzullo "The Mu2e Trigger"

Visits

- meeting point: Wilson Hall atrium
- visitors must wear closed shoes
- visitors will be provided with clean room garments to wear

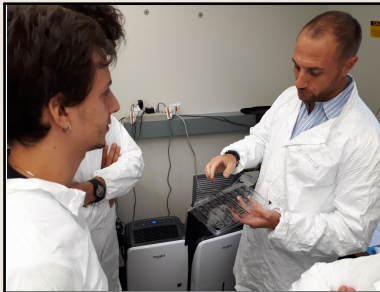
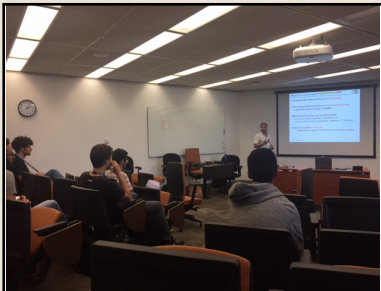
Friday, August 17, 11:00 – Mu2e tracker development and construction @ Lab3

Friday, August 24, 11:00 – Clean room of the Mu2e calorimeter @ SiDet-LabA



 Fermilab

August 2018 FNAL summer students training



Dissemination – talks – 2018 – 1

IEEE NSS/MIC, November 10-17, 2018 - Sidney, Australia

- E. Pedreschi (INFN Pisa), A DIgitizer ReAdout Controller for the MU2E calorimeter Data AcQuisition system (poster)
- M. Martini (INFN LNF), The Mu2e Calorimeter

TAU 2018, September 24-28, Vondelkerk, Amsterdam, Netherlands

- A. Driutti (INFN Udine), Current status of the muon g-2 measurement at Fermilab

SIF 2018, September 17-21, Universita` della Calabria, Arcavacata di Rende, Cosenza, Italy

- A. Nath (INFN Naples), Monitoring and Data Acquisition of the Laser Calibration System of Muon g-2 Experiment
- M. Sorbara (INFN Tor Vergata), The energy calibration system of the muon g-2 experiment at Fermilab
- G. Venanzoni (INFN Pisa), Status of the Muon g-2 at Fermilab
- S. Miscetti (INFN LNF), Search for New Physics with the Mu2e Experiment at Fermilab

G. C. College Silchar, August 29, Silchar, India

- A. Nath (INFN Naples) - Magnetic Moment of Muons and New Physics (Seminar)

Dept. of Physics, Assam University Silchar, August 21, Silchar, India

- A. Nath (INFN Naples), Muon g-2 and the Physics Beyond Standard Model (Seminar)

ICNFP 2018, July 4-12, 2018, Orthodox Academy of Crete, Kolymbari, Greece

- N. Raha (INFN Pisa), The current status of the Fermilab Muon g-2 Experiment

Dissemination – talks – 2018 – 2

ICHEP 2018, July 4 - July 11, COEX, Seoul, Korea, Republic Of

- G. Pezzullo (INFN Pisa), Mu2e: a search for charged lepton flavor violation
- E. Diociaiuti (INFN LNF), The Mu2e crystal calorimeter

G. Pezzullo (INFN Pisa), The Mu2e experiment at Fermilab: a search for lepton flavor violation

NP2018, June 18 - June 19, Fermilab, Batavia, IL United States

I. Sarra (INFN LNF), Modular and Custom SiPM for the Mu2e Electromagnetic Calorimeter ICASIPM, June 11 - June 15, Palais Hirsch, Schwetzingen, Germany

PM2018, May 27 - June 2, Hotel Hermitage, La Biodola, Italy + Google Map

- M. Iacovacci (INFN Naples), The Monitoring Electronics of the Laser Calibration System in the Muon g-2 experiment (poster)
- S. Mastroianni (INFN Naples), May 27 - June 2
- A. Driutti (INFN Udine), The calibration system for the g-2 calorimeters
- D. Caiulo (INFN Pisa), Mu2e calorimeter readout electronics (poster)
- S. Di Falco (INFN Pisa), The Mu2e calorimeter: QA of production crystals and SiPMs and results from Module-0 test beam (poster)
- R. Donghia (INFN LNF), Design and test of the Mu2e undoped CsI + SiPM crystal calorimeter

L. Morescalchi (INFN Pisa), Design and test of the Mu2e undoped CsI crystal calorimeter CALOR 2018, May 21 - May 25, University of Oregon, Eugene, OR United States

Dissemination – talks – 2018 – 3

M. Incagli (INFN Pisa), The g-2 experiment at Fermilab: Run 1 Status and Perspectives
VULCANO 2018, May 20 - May 26, Vulcano Island, Italy

LNFS2018, May 7 - May 11, Laboratori Nazionali di Frascati, Rome, Italy

- R. Donghia (INFN LNF), Design and status of the Mu2e crystal electromagnetic calorimeter
- E. Diociaiuti (INFN LNF), The Mu2e experiment at Fermilab: R&D, design and status

IFAE 2018, April 4 - April 6, Milano Bicocca, Milano, Italy

- A. Nath (INFN Naples), Laser Calibration System for the Muon g-2 experiment
- C. Gabbanini (INFN Pisa), L'esperimento g-2 (in Italian)

S. Donati (INFN Pisa), Progress of the Italian Summer Students Program
at the Fermi National Accelerator Laboratory

NPSE 2017, March 22 - March 23, Grand Hotel Mediterraneo, Florence, Italy

A. Lusiani (INFN Pisa), Muon g-2, Current experimental status and future prospects
24th Cracow Epiphany Conference, January 9 - January 12, IFJ PAN, Cracow, Poland

Dissemination – papers – 2018

M. Cordelli et al., Pre-production and quality assurance of the Mu2e calorimeter Silicon Photomultiplier
NIM A 912 (2018) 347, <https://arxiv.org/abs/1712.04749>

S. Giovannella on behalf of the Mu2e Collaboration, Status of the Mu2e experiment
EPJ Web Conf. 179 (2018) 01003

A. Lusiani, Muon g-2, Current Experimental Status and Future Prospects
Acta Physica Polonica B, vol. 49 No. 6 - June 2018
Proceedings of the Cracow Epiphany Conference On Advances in Heavy Flavour Physics
<http://www.actaphys.uj.edu.pl/fulltext?series=Reg&vol=49&page=1247>

N. Atanov et al., The Mu2e undoped CsI crystal calorimeter
Journal: JINST 13 (2018) C02037 (22 February 2018)

A. Anastasi et al., The laser control of the muon g-2 experiment at Fermilab
JINST 13 (2018) T02009 (21 February 2018)

N. Atanov et al., Design and status of the Mu2e crystal calorimeter
<https://arxiv.org/abs/1802.06346>

► 3 more papers to be published in January 2019