



# MUSE Outreach & Dissemination status

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MUSE meeting, 20 December 2019

## Outline

- ▶ completed all Outreach and Dissemination tasks and deliverables
  - ▶ last deliverable: Fermilab summer students lessons and visits, reported in September
- ▶ no significant update since September presentation
- ▶ dissemination: progress on publications and talks is reported

## 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 detector

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

## Dissemination activities

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

## Presentations

### since September 2019

S. Di Falco (INFN Pisa), The Mu2e Experiment, PSI 2019, October 20-25, 2019

I. Sarra (INFN LNF), The Mu2e e.m. calorimeter: crystals and SiPMs production status, SCINT 2019, September 29 - October 4, 2019

R. Donghia (INFN LNF), The Mu2e experiment, SIF 2019, September 23-27, 2019

## Papers and other printed products

### since September 2019

A. Anastasi et al., The laser-based gain monitoring system of the calorimeters in the Muon g-2 experiment at Fermilab, JINST 14 P11025 (2019), 26 November 2019

K.S. Khaw et al., Performance of the Muon g2 calorimeter and readout systems measured with test beam data, NIM A 945 (2019) 162558, 21 November 2019

Raffaella Donghia, The Mu2e calorimeter: R&D and calibration strategies, PHD thesis, Rome 3 University, 25 March 2019

Luca Morescalchi et al., Automated Test Station for the Characterization of Custom Silicon PhotoMultipliers for the Mu2e Calorimeter, PoS TWEPP2018 (2019) 017 SISSA (2019-06-10)

J. Manczak, D. Neuffer, D. Stratakis, Passive Absorbers for Maximizing the Performance of the Mu2e-II Experiment, Proceedings IPAC2019, (2019-06-24)

D. Caiulo, Production and Quality Assurance of the Mu2e Calorimeter Silicon Photomultipliers, J.Phys.Conf.Ser. 1162 (2019) no.1, 012024

*Thanks for your attention!*