



# MUSE Outreach Activities

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MUSE meeting, 15 September 2017

# Introduction

## MUSE Dissemination and Outreach (WP5) mission

### Outreach

- ▶ promotion of communication between scientific community and general public
- ▶ increase of science awareness

### Dissemination

- ▶ report and publish scientific and technological results

### Outline

- ▶ progress since MUSE May 2017 meeting
- ▶ incoming planned activities
- ▶ milestones status

# Training lectures in Rome and experiences at LNF on the Mu2e electro-magnetic calorimeter, May 15-17, 2017

## May 15, training lectures

- ▶ F. Happacher, "The Mu2e Experiment at Fermilab"
- ▶ S. Giovannella, "Scintillating Crystals"
- ▶ I. Sarra, "Silicon PhotoMultipliers"

## May 17, hands-on experiences

- ▶ introductions on measurements of crystals and silicon photomultipliers (SiPMs) properties
  - ▶ R. Donghia, "Crystal Test"
  - ▶ E. Diociaiuti, "Mu2e SiPMs test"
- ▶ experiences
  - ▶ comparison of the light yield and of the longitudinal response uniformity of pure CsI and BaF2 crystals
  - ▶ measurement of the I-V curve for not irradiated and irradiated SiPMs at different temperatures.

**MUSE**

**The Mu2e Electromagnetic Calorimeter**  
MUSE outreach program for University students  
15-17 May 2017  
University of Rome "Tor Vergata"  
INFN - Laboratori Nazionali di Frascati

Monday 15 May 2017, 10:00 A.M.  
University of Rome "Tor Vergata" Aula Grassano

**Summary**

F. Happacher: The Mu2e Experiment  
S. Giovannella: Scintillating Crystals  
I. Sarra: Silicon PhotoMultipliers

Tuesday 17 May 2017, 2:00 P.M.  
Laboratori Nazionali di Frascati

Hands-on laboratories  
E. Diociaiuti, R. Donghia

14:00 Building 56  
Introduction to the experiment  
R. Donghia, E. Diociaiuti

15:00 Building 56  
Measurement of Scintillation Properties for Cal Crystals  
Measurement of Silicon PhotoMultiplier Properties

INFN  
University of Rome

# Training lectures and guided tours for FNAL summer students

- ▶ (Task 5.5, Summer School at Fermi National Accelerator Laboratory)
- ▶ activities on August 4, 2017
- ▶ 3h 40m of training lectures on Mu2e
- ▶ guided tours to Mu2e and Muon  $g-2$  experimental halls ( $\sim 20$  students)



**“The Mu2e Experiment”**

Training lectures for the US/EU students of the Fermilab Summer School

Lectures

Thursday, August 3 – Dark Side Room (WH6NW) – Wilson Hall

10:00 – 10:40 J. Bono, “Introduction to Mu2e”  
 10:40 – 11:20 J. F. Caron, “The Mu2e Tracker”  
 11:20 – 12:00 S. Miscetti, “The Mu2e Calorimeter”

12:00 – 14:00 Lunch Break

14:00 – 14:40 E. Prebys, “The Mu2e Proton Beam”  
 14:40 – 15:20 C. Dukes “The Mu2e Cosmic Ray Veto”  
 15:20 – 15:40 Discussion

15:40 Adjourn

**Visit to the Mu2e and g-2 Halls**

Friday, August 4, 10:00 A.M.  
 Meeting point: Auditorium – Wilson Hall



**MUSE**  **Fermilab** 

## 3-day high school teachers training in LNF, October 4-6, 2017

### Deliverable, scheduled for October 2017

**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.

**Mu2e MUSE Italian collaborators are preparing the event, details will be reported after the event**



**IDF in breve**

Incontri di Fisica è il corso di formazione e aggiornamento su temi della Fisica Moderna per docenti di discipline scientifiche delle scuole secondarie di secondo grado e giornalisti scientifici di tutta Italia, realizzato dai Laboratori Nazionali di Frascati dell'INFN.

# 50th Fermilab anniversary open day, September 23, 2017

- ▶ 2 Italian Muon  $g-2$  collaborators will guide tours to the experiment
- ▶ 1 Italian Mu2e collaborators will guide tours to the experiment

The screenshot shows the Fermilab website's 'Community Open House' page. At the top, there is a search bar and a navigation menu with links for Home, Contact, Phone Book, Fermilab at Work, Jobs, We are 50, About, Science, Newsroom, Come visit us, and Resources for. The main header features the Fermilab logo (50 Years of Discovery) and a large image of a man in a lab coat. Below the header, the page is titled 'Community Open House' and includes the following text:

**Fermilab, Batavia, Illinois**

**Saturday, Sept. 23, 2017**

10 a.m.-4 p.m.

You are invited to Fermilab's biggest Open House in decades! Our **free** Community Open House takes place on Saturday, Sept. 23, 2017, from 10 a.m to 4 p.m. This will be a rare opportunity to see the laboratory up close and tour areas not typically open to the public. Everyone is welcome to join us in celebrating 50 years of science.

We will host tours, demos and hands-on activities for the whole family — there's a

On the left side of the page, there is a sidebar with a green header 'Community Open House' and links for 'About Fermilab', 'What to see at the Open House', 'Before you come to the Open House', and 'How to get to the Open House'.

## Dissemination

- ▶ papers and presentations are listed on the muse web site

- ▶ <http://muse.lnf.infn.it/paper/>
- ▶ <http://muse.lnf.infn.it/events/category/talks/>

### papers since May 2017 MUSE meeting

- ▶ no new paper since May 2017 meeting

### presentations since May 2017 MUSE meeting

- ▶ EPS 2017 – The Fermilab Muon g-2 Experiment, M. Lancaster (UCL), EPS 2017
- ▶ The Fermilab muon g-2 straw tracking detectors and the muon EDM measurement, R. Chislett (UCL), EPS 2017
- ▶ Construction and Commissioning of the Beam Delivery, Storage Ring and g-2 Detectors at FNAL, A. Gioiosa (INFN LE), EPS 2017
- ▶ The Italian Summer Students Program at Fermi National Accelerator Laboratory (poster), S. Donati (INFN Pisa), EPS 2017
- ▶ The muon to electron conversion process and the Mu2e experiment at Fermilab, S. Miscetti (INFN LNF), EPS 2017
- ▶ The Mu2e tracker and calorimeter systems, S. Giovannella (INFN LNF), EPS 2017
- ▶ Pre-Production and Quality Assurance of the Mu2e Silicon Multipliers (poster), L. Morescalchi (INFN Pisa), NDIP 2017
- ▶ Misura del momento magnetico anomalo del muone ad altissima precisione, G. Venanzoni (INFN Pisa), INFN Pisa seminar
- ▶ The Muon g-2 anomaly: experimental status and prospects, G. Venanzoni (INFN Pisa), XII Meeting on B physic, Centro Congressi Università di Napoli Federico II, Naples, Italy

## Conclusion

► thanks for your attention!