

## Session Program

8-13 Jun 2025



## Fifth MODE Workshop on Differentiable Programming for Experiment Design

### *Applications in Muon Tomography*

OAC conference center, Kolymbari, Crete, Greece.

## Tuesday 10 June

10:00

### Applications in Muon Tomography

**Session** | **Location:** OAC conference center, Kolymbari, Crete, Greece. | **Convener:** Zahraa Zaher

10:00–10:25

#### Imaging Techniques in Muon Tomography

**Speaker**

Konstantin Borozdin

10:30

10:25–10:30

#### Discussion

11:00

### Applications in Muon Tomography

**Session** | **Location:** OAC conference center, Kolymbari, Crete, Greece. | **Convener:** Zahraa Zaher

11:00–11:25

#### From Light to Muons: Towards a Unified Framework for Physics-based 3D Scene Reconstruction

**Speaker**

Felix Sattler

11:25–11:30

#### Discussion

11:30–11:55

#### Gradient-descent-based reconstruction for muon tomography based on automatic differentiation in PyTorch

**Speaker**

Jean-Marco Alameddine

12:00

11:55–12:00

#### Discussion

# Wednesday 11 June

11:00

## Applications in Muon Tomography

**Session** | **Location:** OAC conference center, Kolymbari, Crete, Greece. | **Conveners:** Zahraa Daher, Zahraa Zaher

11:00–11:25

### Deep Learning for Muographic Image Upsampling: Improvements and Experimental Data Validation

**Speaker**

William O'Donnell

11:30

11:25–11:30

### Discussion