

# **SOSC 2024 Sixth International School on Open Science Cloud**

## **Report of Contributions**

Contribution ID: 116

Type: **not specified**

# Data Acquisition, analysis and management: A real DarkMatter Experiment

*Monday, 2 December 2024 10:00 (1 hour)*

**Presenter:** DHO, Giorgio (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Lectures

Contribution ID: **117**

Type: **not specified**

## Welcome and Introduction

*Monday, 2 December 2024 09:00 (1 hour)*

**Presenters:** BONACORSI, Daniele (Istituto Nazionale di Fisica Nucleare); SPIGA, Daniele (Istituto Nazionale di Fisica Nucleare); SALOMONI, Davide

**Session Classification:** Lectures

Contribution ID: **118**

Type: **not specified**

## **How do I manage applications: Containers**

*Monday, 2 December 2024 11:20 (1h 40m)*

**Primary author:** SPIGA, Daniele (Istituto Nazionale di Fisica Nucleare)

**Presenters:** SPIGA, Daniele (Istituto Nazionale di Fisica Nucleare); CIANGOTTINI, Diego (INFN Perugia)

**Session Classification:** Lectures

Contribution ID: **119**

Type: **not specified**

## Exercising with Docker

*Monday, 2 December 2024 14:20 (1 hour)*

**Presenter:** CIANGOTTINI, Diego (INFN Perugia)

**Session Classification:** Hands On

Contribution ID: 120

Type: **not specified**

## **Introduction to the project and its NATS-nased DAQ**

*Monday, 2 December 2024 15:20 (1 hour)*

### **Summary**

**Presenter:** ANDERLINI, Lucio (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Hands On

Contribution ID: 121

Type: **not specified**

## **Introduction to the project and its NATS-nased DAQ**

*Monday, 2 December 2024 16:40 (1 hour)*

### **Summary**

**Presenter:** ANDERLINI, Lucio (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Hands On

Contribution ID: 122

Type: **not specified**

## **Container Orchestration: a comprehensive overview**

*Tuesday, 3 December 2024 09:00 (1 hour)*

**Presenter:** CIANGOTTINI, Diego (INFN Perugia)

**Session Classification:** Lectures



Contribution ID: 123

Type: **not specified**

## How do I manage my data: Cloud Storage

*Tuesday, 3 December 2024 10:00 (1 hour)*

**Presenter:** COSTANTINI, Alessandro (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Lectures

Contribution ID: 124

Type: **not specified**

## **Cloud Storage in practice. Guided exercise on storage: read and write data**

*Tuesday, 3 December 2024 11:20 (50 minutes)*

**Presenter:** COSTANTINI, Alessandro (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Lectures

Contribution ID: 125

Type: **not specified**

## **Introduction to DASK: What, why, When**

*Tuesday, 3 December 2024 12:10 (50 minutes)*

**Presenter:** MARIOTTI, Mirko (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Lectures

Contribution ID: 126

Type: **not specified**

## Still Dask... going distributed

*Tuesday, 3 December 2024 14:20 (1 hour)*

**Presenter:** MARIOTTI, Mirko (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Hands On

Contribution ID: 127

Type: **not specified**

## Student Project

*Tuesday, 3 December 2024 15:20 (1 hour)*

**Presenter:** ANDERLINI, Lucio (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Hands On

Contribution ID: **128**

Type: **not specified**

## **Student Project**

*Tuesday, 3 December 2024 16:50 (1 hour)*

**Session Classification:** Hands On

Contribution ID: **129**

Type: **not specified**

## **Machine Learning Basics**

*Wednesday, 4 December 2024 09:00 (1 hour)*

**Presenter:** SCRUCCA, Luca (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Lectures

Contribution ID: **130**

Type: **not specified**

## **Machine Learning: Neural Nets**

*Wednesday, 4 December 2024 10:00 (50 minutes)*

**Presenter:** SCRULLA, Luca (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Lectures



Contribution ID: 131

Type: **not specified**

## **Computer Vision with Deep Learning: Basics**

*Wednesday, 4 December 2024 11:10 (50 minutes)*

**Presenter:** ANDERLINI, Lucio (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Lectures

Contribution ID: 132

Type: **not specified**

## **Out of memory computing with DASK**

*Wednesday, 4 December 2024 12:00 (1 hour)*

**Presenter:** ANDERLINI, Lucio (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Lectures

Contribution ID: 133

Type: **not specified**

## OOM Deep Learnign on MNIST

*Wednesday, 4 December 2024 14:20 (1 hour)*

**Presenter:** ANDERLINI, Lucio (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Hands On

Contribution ID: 134

Type: **not specified**

## **Student Project**

*Wednesday, 4 December 2024 15:20 (1 hour)*

**Session Classification:** Hands On

Contribution ID: 135

Type: **not specified**

## Student Project

*Wednesday, 4 December 2024 16:40 (1h 20m)*

**Session Classification:** Hands On

Contribution ID: 136

Type: **not specified**

## **Distributed Computing: Automation at all levels**

*Thursday, 5 December 2024 09:00 (50 minutes)*

**Presenter:** SPIGA, Daniele (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Lectures

Contribution ID: 137

Type: **not specified**

## **Distributed Computing: Automation at all levels**

*Thursday, 5 December 2024 09:50 (1 hour)*

**Presenter:** CIANGOTTINI, Diego (INFN Perugia)

**Session Classification:** Lectures

Contribution ID: 138

Type: **not specified**

## **Pipeline composition via MLFlow: Connecting the dots**

*Thursday, 5 December 2024 11:10 (1h 50m)*

**Presenter:** CIANGOTTINI, Diego (INFN Perugia)

**Session Classification:** Lectures



Contribution ID: 139

Type: **not specified**

## **Building your pipeline with workflow automation**

*Thursday, 5 December 2024 14:20 (1 hour)*

**Presenter:** CIANGOTTINI, Diego (INFN Perugia)

**Session Classification:** Hands On

Contribution ID: **140**

Type: **not specified**

## **Student Project**

*Thursday, 5 December 2024 15:20 (1 hour)*

**Session Classification:** Hands On

Contribution ID: **141**

Type: **not specified**

## **Student Project**

*Thursday, 5 December 2024 16:40 (1 hour)*

**Session Classification:** Hands On

Contribution ID: 142

Type: **not specified**

## **Certificates and Student Survey**

*Friday, 6 December 2024 09:30 (30 minutes)*

**Session Classification:** Final session

Contribution ID: **143**

Type: **not specified**

## **Hands-on with FPGA**

*Friday, 6 December 2024 10:00 (1 hour)*

Recipe for students

<https://github.com/SOSC-School/sosc24-class/blob/main/day5/FPGA%20Instructions.md>

### **Summary**

**Presenter:** MARIOTTI, Mirko (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Final session

Contribution ID: 144

Type: **not specified**

## **Distributed Computing: An Insight Into Current Development and Future Challenges**

*Friday, 6 December 2024 10:00 (1 hour)*

**Presenters:** SPIGA, Daniele (Istituto Nazionale di Fisica Nucleare); CIANGOTTINI, Diego (INFN Perugia); ANDERLINI, Lucio (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Final session