

# First ML-INFN Hackathon



## Report of Contributions

Contribution ID: 1

Type: **not specified**

# What is Machine Learning and why it is relevant to INFN

*Monday, 7 June 2021 09:20 (50 minutes)*

**Presenter:** BONACORSI, Daniele (BO)

**Session Classification:** Introduction

Contribution ID: 2

Type: **not specified**

# Neural Networks: principles and common architectures

*Monday, 7 June 2021 10:10 (1h 5m)*

**Presenter:** GIAGU, Stefano (ROMA1)

**Session Classification:** Introduction

Contribution ID: 3

Type: **not specified**

# Cloud Computing and Cloud-INFN

**Session Classification:** Introduction

Contribution ID: 4

Type: **not specified**

## **INFN-Cloud, and how to use it for ML\_INF**

*Monday, 7 June 2021 11:30 (1 hour)*

**Presenter:** SPIGA, Daniele (PG)

**Session Classification:** Introduction

Contribution ID: 5

Type: **not specified**

## **Playing with CERN Open Data with numpy, pandas and pyplot**

**Presenter:** ANDERLINI, Lucio (FI)

**Session Classification:** Hands-on

Contribution ID: 6

Type: **not specified**

## **Hands-on - Playing with CERN Open Data with numpy, pandas and pyplot**

*Monday, 7 June 2021 13:45 (1h 15m)*

**Presenter:** ANDERLINI, Lucio (FI)

**Session Classification:** Hands-on

Contribution ID: 7

Type: **not specified**

## Introduction to keras

*Monday, 7 June 2021 15:00 (30 minutes)*

**Presenters:** RIZZI, Andrea (PI); RIZZI, Andrea (INFN Pisa)

**Session Classification:** Hands-on

Contribution ID: 8

Type: **not specified**

## **Hands-on - Introduction to keras**

*Monday, 7 June 2021 15:30 (45 minutes)*

**Presenters:** RIZZI, Andrea (INFN Pisa); RIZZI, Andrea (PI)

**Session Classification:** Hands-on

Contribution ID: 9

Type: **not specified**

## **ML Basics: hands-on on a simple categorization example in HEP**

*Tuesday, 8 June 2021 09:30 (45 minutes)*

**Presenter:** ANDERLINI, Lucio (FI)

Contribution ID: **10**

Type: **not specified**

## **ML for applications in medical physics of INFN interest**

*Tuesday, 8 June 2021 12:30 (30 minutes)*

**Presenter:** RETICO, Alessandra (PI)

Contribution ID: 11

Type: **not specified**

## **ML for applications in High Energy Physics**

*Tuesday, 8 June 2021 09:00 (30 minutes)*

**Presenter:** DORIGO, Tommaso (PD)

Contribution ID: 12

Type: **not specified**

## **Discrimination of hadronic jets from light and heavy flavours @ LHC**

*Wednesday, 9 June 2021 09:00 (10 minutes)*

**Presenter:** BOCCALI, Tommaso (PI)

**Session Classification:** Hackathon introduction

Contribution ID: 13

Type: **not specified**

## **Autoencoders for VIRGO GW signal analysis**

*Wednesday, 9 June 2021 09:10 (10 minutes)*

**Presenter:** SORRENTINO, Nunziato (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Hackathon introduction

Contribution ID: 14

Type: **not specified**

## **Classification of lesions in medical physics**

*Wednesday, 9 June 2021 09:20 (10 minutes)*

**Presenter:** RETICO, Alessandra (PI)

**Session Classification:** Hackathon introduction

Contribution ID: 15

Type: **not specified**

## **Introduction and logistics**

*Monday, 7 June 2021 09:00 (20 minutes)*

**Presenter:** BOCCALI, Tommaso (PI)

Contribution ID: **16**

Type: **not specified**

## **How to access INFNCloud**

*Wednesday, 9 June 2021 16:30 (20 minutes)*

**Presenters:** SPIGA, Daniele (PG); DUMA, Doina Cristina (CNAF)