

# Data Science Applications in Physics, Balkan School in Tirana 2024



## Report of Contributions

Contribution ID: 46

Type: **not specified**

## Students' registration

*Monday 22 January 2024 12:00 (15 minutes)*

Contribution ID: 47

Type: **not specified**

## Opening / welcoming speech

*Monday 22 January 2024 12:15 (10 minutes)*

**Primary author:** Prof. HAFIZI, Mimoza (National Institute of Physics, Academy of Sciences of Albania)

**Presenter:** Prof. HAFIZI, Mimoza (National Institute of Physics, Academy of Sciences of Albania)

Contribution ID: 48

Type: **not specified**

## **Monte Carlo tools for the CMS experiment.**

*Monday 22 January 2024 14:15 (1 hour)*

**Presenter:** Dr MARGJEKA, Ilirjan (University of Bari, INFN, Italy)

Contribution ID: 50

Type: **not specified**

## **Artificial intelligence. Machine learning applications in physics.**

*Monday 22 January 2024 15:25 (1 hour)*

**Presenter:** Prof. KAMBERAJ, Hiqmet (International Balkan University, North Macedonia)

Contribution ID: 51

Type: **not specified**

## **Machine learning in high energy physics and more: Hands-on session.**

*Tuesday 23 January 2024 12:00 (1 hour)*

**Presenter:** Prof. DE FILIPPIS, Nicola (Politecnico di Bari & INFN Bari, Italy)

Contribution ID: 53

Type: **not specified**

## The replica method.

*Tuesday 23 January 2024 14:30 (1h 30m)*

**Presenter:** Dr KERBIZI, Albi (University of Trieste & INFN Trieste, Italy)

Contribution ID: 54

Type: **not specified**

## **Radiotherapy with hadrons.**

*Wednesday 24 January 2024 12:00 (2 hours)*

**Presenter:** Dr LOPEZ, Dayron Ramos (Politecnico di Bari & INFN Bari, Italy)



Contribution ID: 55

Type: **not specified**

## **Nanotechnology in theranostics.**

*Wednesday 24 January 2024 14:30 (1 hour)*

**Presenter:** Prof. ZIBERI, Bashkim (University of Tetova, North Macedonia)

Contribution ID: 57

Type: **not specified**

## **Lab. activity on radioactivity: Hands-on session.**

*Thursday 25 January 2024 11:00 (2 hours)*

**Presenter:** Mr FERRARA, Nicola (Politecnico di Bari & INFN Bari, Italy)

Contribution ID: **61**

Type: **not specified**

## **Signal processing and data analysis for plasma spectroscopy.**

*Friday 26 January 2024 09:00 (1h 30m)*

**Presenter:** Dr GOJANI, Ardian (Secopta Analytics, Germany)

Contribution ID: 63

Type: **not specified**

## **Certificates distribution and closing speech**

*Friday 26 January 2024 11:00 (15 minutes)*

Contribution ID: 64

Type: **not specified**

## **Recent achievement in the field of point-of-care diagnostics.**

*Wednesday 24 January 2024 15:40 (1 hour)*

**Presenter:** Prof. YMETI, Aurel (Nanoalmyona BV, The Netherlands)

Contribution ID: 65

Type: **not specified**

## **Modelling, numerical physics and mathematical physics.**

*Monday 22 January 2024 16:25 (1 hour)*

**Primary author:** Dr HIREMATH, Sandesh (Institute for Mechanical and Process Engineering, RPTU, Germany)

**Co-author:** Prof. BAJCINCA, Naim (Institute for Mechanical and Process Engineering, RPTU, Germany)

**Presenters:** Prof. BAJCINCA, Naim (Institute for Mechanical and Process Engineering, RPTU, Germany); Dr HIREMATH, Sandesh (Institute for Mechanical and Process Engineering, RPTU, Germany)

Contribution ID: **66**

Type: **not specified**

## **Implementation of the replica method in a ROOT program: Hands-on session.**

*Tuesday 23 January 2024 16:10 (1 hour)*

**Presenter:** Dr KERBIZI, Albi (University of Trieste & INFN Trieste, Italy)

Contribution ID: 67

Type: **not specified**

## **Contemporary topics in condensed matter physics.**

*Thursday 25 January 2024 15:40 (1h 30m)*

**Presenter:** Prof. CIFTJA, Orion (Prairie View A&M University, USA)



Contribution ID: **68**

Type: **not specified**

## **Monte Carlo tools for the CMS experiment: Hands-on session.**

*Tuesday 23 January 2024 13:00 (1 hour)*

**Presenter:** Dr MARGJEKA, Ilirjan (INFN Bari & CERN, Italy)

Contribution ID: **69**

Type: **not specified**

## **Computer vision.**

*Thursday 25 January 2024 13:00 (1 hour)*

**Presenter:** Dr KAFEXHIU, Ervin (Faculty of Natural Sciences, University of Tirana)

Contribution ID: 70

Type: **not specified**

## **Machine learning in high energy physics and more.**

*Monday 22 January 2024 12:45 (1 hour)*

**Presenter:** Prof. DE FILIPPIS, Nicola (Politecnico di Bari & INFN Bari, Italy)

Contribution ID: 72

Type: **not specified**

## **Vera Rubin vs Elon Musk: understanding the dark universe under a brightening sky.**

*Friday 26 January 2024 10:30 (30 minutes)*

**Presenter:** Dr CARASSOU, Sébastien (Société des Astronomes de France)

Contribution ID: 73

Type: **not specified**

## **Solving differential equations using physically informed neural networks (PINNs).**

*Thursday 25 January 2024 14:30 (1 hour)*

**Presenter:** Dr PEQINI, Klaudio (Faculty of Natural Sciences, University of Tirana)

Contribution ID: 74

Type: **not specified**

## Opening / welcoming speech

*Monday 22 January 2024 12:25 (10 minutes)*

**Primary author:** Dr BUCCI, Fabrizio (Italian Ambassador in Albania)

**Presenter:** Dr BUCCI, Fabrizio (Italian Ambassador in Albania)

Contribution ID: 75

Type: **not specified**

## Opening / welcoming speech

*Monday 22 January 2024 12:35 (10 minutes)*

**Primary author:** Mr RUGGERA, Alessandro (Director, Italian Cultural Institute in Tirana)

**Presenter:** Mr RUGGERA, Alessandro (Director, Italian Cultural Institute in Tirana)

Contribution ID: 76

Type: **not specified**

## **Visit at the Institute of Applied Nuclear Physics**

*Thursday 25 January 2024 10:00 (1 hour)*