

Initial Lectures & Tutorials

Report of Contributions

Contribution ID: 1

Type: **not specified**

Introduction to particle physics

Monday, 13 July 2020 09:30 (1h 15m)

Presenter: PIMENTA, Mário (LIP)

Session Classification: Session

Contribution ID: 2

Type: **not specified**

Particle detectors

Monday, 13 July 2020 11:30 (30 minutes)

Presenter: GOMES, Agostinho (LIP)

Session Classification: Session

Contribution ID: 3

Type: **not specified**

Instructions for the week

Monday, 13 July 2020 12:15 (15 minutes)

Presenter: GONÇALO, Ricardo (UC/LIP)

Session Classification: Session

Contribution ID: 4

Type: **not specified**

Root basic tutorial

Monday, 13 July 2020 14:00 (3 hours)

Introduction to the ROOT analysis framework

Presenters: COELHO, Luis; BARRUÉ, Ricardo (LIP)

Session Classification: Tutorials

Contribution ID: 5

Type: **not specified**

C++ tutorial

Monday, 13 July 2020 14:00 (3 hours)

General instructions for hands-on tutorials:

- get ssh key, send public file to helpdesk@lip.pt
- login to your account as: ssh -XY your_username@summer.ncg.ingrid.pt
- troubleshooting: slack channel #lip-machines
- advise for exercises: slack channel #c-tutorial, #root1-tutorial
- zoom connection (see room link attached to each individual tutorial session)

This tutorial session:

Needed if you are not familiar with the C++ programming language

Presenters: CARVALHO, Ana Luisa (LIP); BARROS, Maura; SARMENTO, Raul (LIP)

Session Classification: Tutorials

Contribution ID: 6

Type: **not specified**

Root basic tutorial

Tuesday, 14 July 2020 14:00 (3 hours)

Introduction to the ROOT analysis framework

Presenters: COELHO, Luis; BARRUÉ, Ricardo (LIP)

Session Classification: Tutorials

Contribution ID: 7

Type: **not specified**

Root intermediate/advanced tutorial

Tuesday, 14 July 2020 14:00 (3 hours)

For those with some experience using ROOT, or who followed the basic tutorial

Presenters: CARVALHO, Ana Luisa (LIP); BARROS, Maura; SARMENTO, Raul (LIP)

Session Classification: Tutorials

Contribution ID: 8

Type: **not specified**

LHC Open Data

Wednesday, 15 July 2020 14:00 (1 hour)

Visual analysis of public LHC data.

Presenter: PEDRO, Rute (LIP)

Session Classification: Tutorials

Contribution ID: 9

Type: **not specified**

Data analysis / fitting tutorial

Wednesday, 15 July 2020 15:00 (2 hours)

Data analysis and fitting using ROOT

Presenters: BOLETTI, Alessio (LIP); CARVALHO, Ana Luisa (LIP); LEONARDO, Nuno (LIP)

Session Classification: Tutorials

Contribution ID: **10**

Type: **not specified**

The LHC experimental program

Tuesday, 14 July 2020 09:30 (30 minutes)

The case for the LHC - LHC experiments

Presenter: VARELA, João (LIP)

Session Classification: Session

Contribution ID: 11

Type: **not specified**

Probing the Standard Model and Beyond at the LHC

Tuesday, 14 July 2020 10:45 (30 minutes)

Brief (and hopefully complementary) overview of LHC physics

Presenter: CASTRO, Nuno (LIP and University of Minho)

Session Classification: Session

Contribution ID: 12

Type: **not specified**

The nucleon

Wednesday, 15 July 2020 09:30 (30 minutes)

Physics of the nucleon and fixed-target experiments

Presenter: QUARESMA, Marcia (LIP)

Session Classification: Session

Contribution ID: 13

Type: **not specified**

QCD and Heavy Ions

Wednesday, 15 July 2020 10:45 (30 minutes)

Quantum chromodynamics and phenomenology of heavy-ion collisions

Presenter: APOLINÁRIO, Liliانا (LIP)

Session Classification: Session

Contribution ID: 14

Type: **not specified**

Astroparticles

Thursday, 16 July 2020 09:30 (30 minutes)

Astroparticle physics: cosmic and gamma rays

Presenter: CONCEIÇÃO, Rúben (LIP)

Session Classification: Session

Contribution ID: 15

Type: **not specified**

Dark matter and neutrinos

Thursday, 16 July 2020 10:45 (30 minutes)

Dark matter and neutrino physics and experiments

Presenter: LOPEZ ASAMAR, Elias

Session Classification: Session

Contribution ID: 16

Type: **not specified**

Machine Learning

Thursday, 16 July 2020 14:00 (3 hours)

Machine learning techniques in particle physics

Presenters: BARROS, Maura; CRISPIM ROMAO, Miguel (LIP); PEDRO, Rute (LIP); VALE, Tiago (LIP)

Session Classification: Tutorials

Contribution ID: 17

Type: **not specified**

Space

Friday, 17 July 2020 09:30 (30 minutes)

...the final frontier

Particle physics techniques and space exploration

Presenter: GONÇALVES, Patricia (LIP)

Session Classification: Session

Contribution ID: **18**

Type: **not specified**

Particles and Health

Friday, 17 July 2020 10:45 (30 minutes)

Particle physics techniques applied to health

Presenter: CRESPO, Paulo (LIP)

Session Classification: Session