

CHACAL 2024

Report of Contributions

Contribution ID: 1

Type: **not specified**

Registration

Monday 15 January 2024 08:30 (30 minutes)

Contribution ID: 2

Type: **not specified**

Welcome

Monday 15 January 2024 09:00 (20 minutes)

Contribution ID: 3

Type: **not specified**

High energy physics refresher: the SM, new physics and the LHC

Monday 15 January 2024 09:20 (1h 10m)

Presenter: KAR, Deepak (University of the Witwatersrand (ZA))

Contribution ID: 4

Type: **not specified**

Refresher on scientific computing: Python and working on a terminal

Monday 15 January 2024 11:00 (1h 30m)

Presenter: Dr CORPE, Louie Dartmoor (Laboratoire de Physique de Clermont (LPC))

Contribution ID: 5

Type: **not specified**

TUTORIAL: Docker trial run, and basic Bash and Python

Monday 15 January 2024 13:30 (1h 30m)

Presenter: Dr CORPE, Louie Dartmoor (Laboratoire de Physique de Clermont (LPC))

Contribution ID: 6

Type: **not specified**

TUTORIAL: Monte Carlo integration using Python

Monday 15 January 2024 15:15 (1h 15m)

Contribution ID: 7

Type: **not specified**

Data analysis in HEP

Tuesday 16 January 2024 09:00 (1h 30m)

Presenter: BUTTERWORTH, Jonathan (UCL)

Contribution ID: 8

Type: **not specified**

Refresher: C++ programming

Tuesday 16 January 2024 11:00 (1h 30m)

Presenter: DOGLIONI, Caterina (University of Manchester (GB))

Contribution ID: 9

Type: **not specified**

TUORIAL: C++

Tuesday 16 January 2024 13:30 (1h 30m)

Presenter: DOGLIONI, Caterina (University of Manchester (GB))

Contribution ID: **10**

Type: **not specified**

TUTORIAL: C++

Tuesday 16 January 2024 15:15 (1h 30m)

Presenter: DOGLIONI, Caterina (University of Manchester (GB))

Contribution ID: 11

Type: **not specified**

Statistics for HEP 1

Wednesday 17 January 2024 09:00 (1h 30m)

Presenter: KEAVENEY, James Michael (University of Cape Town (ZA))

Contribution ID: 12

Type: **not specified**

Coding Challenge: Searching for the 'X' boson in a toy analysis

Wednesday 17 January 2024 11:45 (45 minutes)

Presenter: Dr CORPE, Louie Dartmoor (Laboratoire de Physique de Clermont (LPC))

Contribution ID: 13

Type: **not specified**

Coding Challenge: Searching for the 'X' boson in a toy analysis

Wednesday 17 January 2024 13:30 (1h 30m)

Presenter: Dr CORPE, Louie Dartmoor (Laboratoire de Physique de Clermont (LPC))

Contribution ID: 14

Type: **not specified**

Coding Challenge: Searching for the 'X' boson in a toy analysis

Wednesday 17 January 2024 15:15 (1h 30m)

Presenter: Dr CORPE, Louie Dartmoor (Laboratoire de Physique de Clermont (LPC))

Contribution ID: 15

Type: **not specified**

Overview of machine learning techniques

Thursday 18 January 2024 11:00 (1h 30m)

Presenter: ROUSSEAU, David (IJCLab-Orsay)

Contribution ID: 16

Type: **not specified**

Statistics for HEP 2

Thursday 18 January 2024 09:00 (1h 30m)

Presenter: KEAVENEY, James Michael (University of Cape Town (ZA))

Contribution ID: 17

Type: **not specified**

Fundamentals of MC Generation (Part I)

Thursday 18 January 2024 15:15 (1h 30m)

Presenter: BUCKLEY, Andy (University of Glasgow (GB))

Contribution ID: 18

Type: **not specified**

TUTORIAL: Boosted Decision Tree and generic Machine Learning diagnostics for HEP

Thursday 18 January 2024 13:30 (1h 30m)

Presenter: ROUSSEAU, David (IJCLab-Orsay)

Contribution ID: 19

Type: **not specified**

Funamentals of MC Generation (Part II)

Friday 19 January 2024 09:00 (1h 30m)

Presenter: FUKS, Benjamin

Contribution ID: 20

Type: **not specified**

Designing measurements for the LHC

Friday 19 January 2024 11:00 (1h 30m)

Presenter: BUTTERWORTH, Jonathan (UCL)

Contribution ID: 21

Type: **not specified**

Tutorial: Monte Carlo Event Generation (Part I)

Friday 19 January 2024 13:30 (1h 30m)

Presenters: BUCKLEY, Andy (University of Glasgow (GB)); FUKS, Benjamin

Contribution ID: 22

Type: **not specified**

Tutorial: More diagnostics and Neural Networks for HEP

Friday 19 January 2024 15:15 (1h 30m)

Presenter: ROUSSEAU, David (IJCLab-Orsay)

Contribution ID: 23

Type: **not specified**

Advanced ML for HEP

Saturday 20 January 2024 09:30 (1h 30m)

Presenter: ROUSSEAU, David (IJCLab-Orsay)

Contribution ID: 24

Type: **not specified**

Machine Learning synergies with business and industry

Saturday 20 January 2024 11:30 (45 minutes)

Presenter: DOGLIONI, Caterina (University of Manchester (GB))

Contribution ID: 25

Type: **not specified**

Monte Carlo Event Generation for Heavy Ions

Monday 22 January 2024 09:50 (45 minutes)

Presenter: Dr KOLBE, Isobel (IGFAE)

Contribution ID: 26

Type: **not specified**

Welcome back: welcome by Wits VC Prof. Zeblon Vilakazi

Monday 22 January 2024 09:00 (20 minutes)

Contribution ID: 27

Type: **not specified**

Data/MC comparisons and Generator Tuning

Monday 22 January 2024 09:20 (30 minutes)

Presenter: BUCKLEY, Andy (University of Glasgow (GB))

Contribution ID: 28

Type: **not specified**

Detector Simulation

Presenter: Dr CORPE, Louie Dartmoor (Laboratoire de Physique de Clermont (LPC))

Contribution ID: 29

Type: **not specified**

Re-interpretations to exclude new physics: Searches

Monday 22 January 2024 11:00 (45 minutes)

Presenter: FUKS, Benjamin

Contribution ID: 30

Type: **not specified**

Re-interpretation to exclude new physics: measurements

Monday 22 January 2024 11:45 (45 minutes)

Presenter: BUTTERWORTH, Jonathan (UCL)

Contribution ID: 31

Type: **not specified**

TUTORIAL: Rivet/CONTUR

Monday 22 January 2024 15:15 (1h 30m)

Presenters: BUCKLEY, Andy (University of Glasgow (GB)); BUTTERWORTH, Jonathan (UCL)

Contribution ID: 32

Type: **not specified**

Generating BSM physics events

Monday 22 January 2024 13:30 (1h 30m)

Presenter: FUKS, Benjamin

Contribution ID: 33

Type: **not specified**

Supervised vs Unsupervised learning

Tuesday 23 January 2024 09:00 (1h 30m)

Presenter: PEIXOTO, Ana (University of Washington (US))

Contribution ID: 34

Type: **not specified**

Challenges in HEP: Monte Carlo Event Generation

Tuesday 23 January 2024 11:00 (45 minutes)

Presenter: BUCKLEY, Andy (University of Glasgow (GB))

Contribution ID: 35

Type: **not specified**

TUTORIAL: Anomaly detection and clustering (part 1)

Tuesday 23 January 2024 13:30 (1h 30m)

Presenters: PEIXOTO, Ana (University of Washington (US)); Dr CORPE, Louie Dartmoor (Laboratoire de Physique de Clermont (LPC))

Contribution ID: 36

Type: **not specified**

TUTORIAL: Anomaly detection and clustering (part 2)

Tuesday 23 January 2024 15:15 (1h 30m)

Presenters: PEIXOTO, Ana (University of Washington (US)); Dr CORPE, Louie Dartmoor (Laboratoire de Physique de Clermont (LPC))

Contribution ID: 37

Type: **not specified**

Validation and Hyper-Parameters in ML

Wednesday 24 January 2024 09:00 (45 minutes)

Presenter: PEIXOTO, Ana (University of Washington (US))

Contribution ID: 38

Type: **not specified**

Challenges in HEP: Machine Learning

Wednesday 24 January 2024 09:45 (45 minutes)

Presenter: PEIXOTO, Ana (University of Washington (US))

Contribution ID: 39

Type: **not specified**

Coding Challenge: X boson continued

Wednesday 24 January 2024 13:30 (1h 30m)

Contribution ID: 40

Type: **not specified**

Coding Challenge: X boson continued

Wednesday 24 January 2024 15:15 (1h 30m)

Presenter: Dr CORPE, Louie Dartmoor (Laboratoire de Physique de Clermont (LPC))

Contribution ID: 41

Type: **not specified**

Coding Challenge: X boson continued

Wednesday 24 January 2024 11:00 (1h 30m)

Contribution ID: 42

Type: **not specified**

Novel computing hardwares in HEP

Thursday 25 January 2024 09:00 (1h 30m)

Presenter: GRAY, Heather (UC Berkeley/LBNL)

Contribution ID: 43

Type: **not specified**

Quantum Computing basics

Thursday 25 January 2024 11:00 (1h 30m)

Presenter: Prof. PETRUCCIONE, Francesco (Stellenbosch)

Contribution ID: 44

Type: **not specified**

TUTORIAL: Quantum Computing basics

Thursday 25 January 2024 13:30 (1h 30m)

Author: HASSASFAR, Omid (Stellenbosch)

Co-author: Prof. PETRUCCIONE, Francesco (Stellenbosch)

Presenters: Prof. PETRUCCIONE, Francesco (Stellenbosch); HASSASFAR, Omid (Stellenbosch)

Contribution ID: 45

Type: **not specified**

TUTORIAL: Quantum Computing basics

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

Author: HASSASFAR, Omid (Stellenbosch)

Co-author: Prof. PETRUCCIONE, Francesco (Stellenbosch)

Presenters: Prof. PETRUCCIONE, Francesco (Stellenbosch); HASSASFAR, Omid (Stellenbosch)

Contribution ID: 46

Type: **not specified**

Quantum Computing applications

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

Presenter: Prof. PETRUCIONNE, Francesco (Stellenbosch)

Contribution ID: 47

Type: **not specified**

Novel computing hardwares in HEP (Part 2)

Friday 26 January 2024 11:00 (1h 30m)

Presenter: GRAY, Heather (UC Berkeley/LBNL)

Contribution ID: 48

Type: **not specified**

Farewell and close-out

Friday 26 January 2024 12:30 (30 minutes)

Contribution ID: 49

Type: **not specified**

Statistics for HEP 1

Wednesday 17 January 2024 11:00 (45 minutes)

Presenter: KEAVENEY, James Michael (University of Cape Town (ZA))

Contribution ID: 50

Type: **not specified**

Challenges in HEP: Lessons learnt from the LHC

Tuesday 23 January 2024 11:45 (45 minutes)

Presenter: KAR, Deepak (University of the Witwatersrand (ZA))

Contribution ID: 51

Type: **not specified**

Career Development Q&A session with the lecturers

Saturday 20 January 2024 12:15 (45 minutes)

Presenter: DOGLIONI, Caterina (University of Manchester (GB))

Contribution ID: 52

Type: **not specified**

SOCIAL: Farewell Dinner at Mike's

Thursday 25 January 2024 18:00 (4 hours)