3rd COMCHA lectures

Report of Contributions

Contribution ID: **1** Type: **not specified**

Farewell

Tuesday 31 October 2023 13:00 (30 minutes)

Contribution ID: **3**   Type: **not specified**

Guided tour to Oviedo's city-center

Saturday 28 October 2023 16:00 (2 hours)

Contribution ID: **4** Type: **not specified**

Social dinner

Friday 27 October 2023 21:00 (2 hours)

Contribution ID: **5** Type: **not specified**

Registration

Monday 23 October 2023 15:00 (30 minutes)

Session Classification: Introduction

Contribution ID: **6**　　　　　　　　　　　　　　　　Type: **not specified**

Inaugural talk:

Monday 23 October 2023 16:00 (45 minutes)

Presenters: MARTINEZ RUIZ DEL ARBOL, Pablo (Instituto de Física de Cantabria); MARTÍNEZ RUÍZ DEL ÁRBOL, Pablo (IFCA-Universidad de Cantabria)

Session Classification: Introduction

Contribution ID: **10**   Type: **not specified**

Computing challenge by N-World

Tuesday 24 October 2023 17:30 (2 hours)

Participants, organized by groups, will face a computing challenge facilitated by NFQ (N-World).

Contribution ID: **11** Type: **not specified**

Computing challenge by N-World

Wednesday 25 October 2023 17:30 (2 hours)

Participants, organized by groups, will face a computing challenge facilitated by NFQ (N-World).

Contribution ID: **12**   Type: **not specified**

Computing challenge by N-World

Participants, organized by groups, will face a computing challenge facilitated by NFQ (N-World).

Session Classification: computing challenge

Contribution ID: **13**   Type: **not specified**

Computing challenge by N-World

Participants, organized by groups, will face a computing challenge facilitated by NFQ (N-World).

Session Classification: computing challenge

Contribution ID: **14**   Type: **not specified**

Computing challenge by N-World

Participants, organized by groups, will face a computing challenge facilitated by NFQ (N-World).

Session Classification: computing challenge

Contribution ID: **15** Type: **not specified**

Results from the computing challenge by N-World

Participants, organized by groups, will face a computing challenge facilitated by NFQ (N-World).

Session Classification: computing challenge

Contribution ID: **16**   Type: **not specified**

Low-power sustainable hardware: FPGAs (intro)

Presenter: NAVARRO TOBAR, Álvaro (CIEMAT)

Session Classification: Low-power sustainable hardware: FPGAs

Contribution ID: **17** Type: **not specified**

Computing challenge by N-World

Thursday 26 October 2023 17:30 (2 hours)

Participants, organized by groups, will face a computing challenge facilitated by NFQ (N-World).

Contribution ID: 18   Type: **not specified**

Computing challenge by N-World

Friday 27 October 2023 17:30 (2 hours)

Participants, organized by groups, will face a computing challenge facilitated by NFQ (N-World).

Contribution ID: **19** Type: **not specified**

Results of computing challenge by N-world

Tuesday 31 October 2023 11:30 (1h 30m)

Contribution ID: **20** Type: **not specified**

Ethics and AI

Saturday 28 October 2023 10:30 (45 minutes)

Presenter: LÓPEZ CASTRO, Daniel (CSIC)

Session Classification: AI: recent developments (Chat-GPT) and ethics

Contribution ID: **21**
Type: **not specified**

AI applications to the industry

Saturday 28 October 2023 12:00 (45 minutes)

Presenter: VILASÍS, Xavier (La Salle-Universitat Ramon Llull)

Session Classification: AI: recent developments (Chat-GPT) and ethics

Contribution ID: **22** Type: **not specified**

From digital networks to quantum networks, passing through neuromorphic computing (I)

Thursday 26 October 2023 09:30 (1h 30m)

Presenter: Dr VISCHIA, Pietro (Universidad de Oviedo and Instituto de Ciencias y Tecnologías Espaciales de Asturias (ICTEA))

Session Classification: Spiking networks and neuromorphic computing

Contribution ID: **23**   Type: **not specified**

From digital networks to quantum networks, passing through neuromorphic computing (II)

Thursday 26 October 2023 11:30 (2 hours)

Presenter: Dr VISCHIA, Pietro (Universidad de Oviedo and Instituto de Ciencias y Tecnologías Espaciales de Asturias (ICTEA))

Session Classification: Spiking networks and neuromorphic computing

Contribution ID: **24** Type: **not specified**

Spiking networks and neuromorphic computing: hands-on

Thursday 26 October 2023 14:30 (2h 30m)

Presenter: Dr VISCHIA, Pietro (Universidad de Oviedo and Instituto de Ciencias y Tecnologías Espaciales de Asturias (ICTEA))

Session Classification: Spiking networks and neuromorphic computing

Contribution ID: **25**   Type: **not specified**

Introduction to Graphics Processing Units (GPUs)

Friday 27 October 2023 09:30 (1h 30m)

Presenter: KISHOR JASHAL, Brij (IFIC-UV)

Contribution ID: **26**   Type: **not specified**

Advance concepts on GPU computing

Monday 30 October 2023 09:30 (1h 30m)

Presenter: FIORINI, Luca (IFIC-Valencia)

Contribution ID: **27** Type: **not specified**

Fundamentals of Accelerated Computing with GPUs: hands-on (III)

Monday 30 October 2023 11:30 (2 hours)

Presenter: FIORINI, Luca (IFIC-Valencia)

Contribution ID: **28**　　　　　　　　　　　　　　　　　Type: **not specified**

Topical talks / Applications: Forecasting geomagnetic storm disturbances and their uncertainties using deep learning

Monday 30 October 2023 14:45 (45 minutes)

Presenter: CONDE, Daniel (IFIC-UV)

Contribution ID: **29** Type: **not specified**

Fundamentals of Accelerated Computing with GPUs: hands-on (IV)

Presenter: FIORINI, Luca (IFIC-UV)

Contribution ID: **30**   Type: **not specified**

Computing challenge by N-World

Monday 30 October 2023 17:30 (2 hours)

Participants, organized by groups, will face a computing challenge facilitated by NFQ (N-World).

Contribution ID: **31**   Type: **not specified**

Fundamentals of Accelerated Computing with GPUs: hands-on (I)

Friday 27 October 2023 12:15 (1h 15m)

Presenter: KISHOR JASHAL, Brij (IFIC-UV)

Contribution ID: **32**   Type: **not specified**

Topical talks / applications: Computer vision applications in industry

Friday 27 October 2023 11:30 (45 minutes)

Presenter: GONZÁLEZ, Xuan (The Next Pangea)

Contribution ID: **33**　　　　　　　　　　　　　　　　　Type: **not specified**

Fundamentals of Accelerated Computing with GPUs: hands-on (II)

Friday 27 October 2023 14:30 (2h 30m)

Presenter: KISHOR JASHAL, Brij (IFIC-UV)

Contribution ID: **34**   Type: **not specified**

Low-power sustenaible hardware: FPGAs (intro)

Tuesday 24 October 2023 09:30 (1h 30m)

Presenter: NAVARRO TOBAR, Álvaro (CIEMAT)

Contribution ID: **35**   Type: **not specified**

Low-power sustenaible hardware: FPGAs (hands-on I)

Tuesday 24 October 2023 12:15 (1h 15m)

Presenter: NAVARRO TOBAR, Álvaro (CIEMAT)

Contribution ID: **36** Type: **not specified**

Topical talks: Revolutionizing Modern Research with ChatGPT and Generative AI

Tuesday 24 October 2023 11:30 (45 minutes)

Presenter: VAN VAERENBERGH, Steven (Universidad de Cantabria)

Contribution ID: **37** Type: **not specified**

Low-power sustenaible hardware: FPGAs (hands-on II)

Tuesday 24 October 2023 14:30 (2h 30m)

Presenter: NAVARRO TOBAR, Álvaro (CIEMAT)

Contribution ID: **38**   Type: **not specified**

Low-power sustenaible hardware: FPGAs (how-to)

Wednesday 25 October 2023 09:30 (1h 30m)

Presenter: NAVARRO TOBAR, Álvaro (CIEMAT)

Contribution ID: **39**

Type: **not specified**

Topical talks / Applications: State-of-the-art techniques to find the optimal hyperparameters for a classifier in HEP

Wednesday 25 October 2023 11:30 (45 minutes)

Presenter: FERNÁNDEZ GÓMEZ, Miguel (Universidade de Santiago de Compostela (ES))

Contribution ID: **40** Type: **not specified**

Low-power sustenaible hardware: FPGAs (hands-on III)

Wednesday 25 October 2023 12:15 (1h 15m)

Presenter: NAVARRO TOBAR, Álvaro (CIEMAT)

Contribution ID: **41** Type: **not specified**

Low-power sustenaible hardware: FPGAs (hands-on IV)

Wednesday 25 October 2023 14:30 (2h 30m)

Presenter: NAVARRO TOBAR, Álvaro (CIEMAT)

Contribution ID: **42** Type: **not specified**

Building challenge

Monday 23 October 2023 18:00 (1h 30m)

Presenter: FOLGUERAS, Santiago (Universidad de Oviedo)

Contribution ID: **43**　　　　　　　　　　　　　　　　　　　Type: **not specified**

Inauguration and welcome

Monday 23 October 2023 15:30 (30 minutes)

Presenter:　FOLGUERAS, Santiago (Universidad de Oviedo)

Session Classification:　Introduction

Contribution ID: 44   Type: **not specified**

Topical talk: Deep learning and graph-based recosntruction for the LHCb calorimeter reconstruction challenge

Monday 23 October 2023 16:45 (45 minutes)

Presenter: VALLS CANUDAS, Núria (La Salle, Universitat Ramon Llull)

Contribution ID: 45   Type: **not specified**

Computing challenge by N-World

Monday 30 October 2023 16:15 (45 minutes)

Participants, organized by groups, will face a computing challenge facilitated by NFQ (N-World).

Contribution ID: 46   Type: **not specified**

Topical talks / Applications: Quantum Computing and High Energy Physics

Monday 30 October 2023 15:30 (45 minutes)

Presenter: LUCIO MARTINEZ, Miriam (Maastricht U.)

Contribution ID: 47   Type: **not specified**

COMCHA network highlight, motivation and future work

Monday 30 October 2023 13:30 (15 minutes)

Presenter: OYANGUREN CAMPOS, Arantza (IFIC-UV)

Contribution ID: 48 Type: **not specified**

Round-table

Tuesday 31 October 2023 09:30 (1h 30m)

Session Classification: Student session