

Quantum Computing for High Energy Physics workshop

Report of Contributions

Contribution ID: 1

Type: **not specified**

Opening

Monday, November 5, 2018 9:00 AM (10 minutes)

Presenter: Dr CARMINATI, Federico (CERN)

Contribution ID: 2

Type: **not specified**

The ATLAS Physics challenge at the HL-LHC and ideas about Quantum Computing

Monday, November 5, 2018 2:00 PM (30 minutes)

Presenter: GRAY, Heather (LBNL)

Contribution ID: 3

Type: **not specified**

Quantum Computing at NVIDIA

Presenter: Dr HEHN, Andreas (NVIDIA Corporation)

Contribution ID: 4

Type: **not specified**

Quantum Computing at INTEL

Monday, November 5, 2018 11:00 AM (30 minutes)

Presenter: Dr ELBE, Astrid (Intel)

Contribution ID: 5

Type: **not specified**

Quantum Computing at Strangeworks

Monday, November 5, 2018 11:30 AM (30 minutes)

Presenter: Dr OCHOA , Andrew (Strangeworks)

Contribution ID: 6

Type: **not specified**

Quantum Computing at D-Wave

Monday, November 5, 2018 12:00 PM (30 minutes)

Presenter: Dr EWALD, Bo (D-Wave)

Contribution ID: 7

Type: **not specified**

Quantum Computing at IBM

Tuesday, November 6, 2018 9:00 AM (30 minutes)

Presenter: IVANO, Tavernelli (IBM)

Contribution ID: 8

Type: **not specified**

Quantum Computing at Microsoft

Tuesday, November 6, 2018 9:30 AM (30 minutes)

Presenter: Dr JORDAN, Stephen (Microsoft)

Contribution ID: 9

Type: **not specified**

Classification with Quantum Annealing on the D-Wave System

Monday, November 5, 2018 4:30 PM (30 minutes)

Presenter: Dr VLIMANT, Jean-Roch (California Institute of Technology (US))

Contribution ID: **10**

Type: **not specified**

Round Table on Quantum Computing

Tuesday, November 6, 2018 5:00 PM (1 hour)

Presenter: CARMINATI, Federico (CERN)

Contribution ID: 11

Type: **not specified**

Computing models and resource needs for ATLAS and CMS during HL_LHC

Monday, November 5, 2018 3:00 PM (30 minutes)

Presenter: BOCCALI, Tommaso (Universita & INFN Pisa (IT))

Contribution ID: 12

Type: **not specified**

ProjectQ

Tuesday, November 6, 2018 10:00 AM (30 minutes)

Presenter: Mr STEIGER, Damien (ETHZ)

Contribution ID: 13

Type: **not specified**

Quantum Computing at Google

Tuesday, November 6, 2018 11:00 AM (30 minutes)

Presenter: KISSELL, Kevin (Google Cloud Office)

Contribution ID: 14

Type: **not specified**

LHCb Run 3 Computing Model

Monday, November 5, 2018 4:00 PM (30 minutes)

Presenter: CATTANEO, Marco (CERN)

Contribution ID: 15

Type: **not specified**

Quantum Computing at Rigetti

Tuesday, November 6, 2018 3:00 PM (30 minutes)

Presenter: Dr ZENG, Will (Rigetti Computers)

Contribution ID: **16**

Type: **not specified**

Quantum Variational AutoEncoder

Tuesday, November 6, 2018 12:00 PM (30 minutes)

Presenter: Dr VINCI, Walter (D-Wave)

Contribution ID: 17

Type: **not specified**

FNAL Quantum Program

Tuesday, November 6, 2018 4:00 PM (30 minutes)

Presenter: SPENTZOURIS, Panagiotis (Fermilab)

Contribution ID: **18**

Type: **not specified**

Digital quantum computation of fermion-boson interacting systems

Tuesday, November 6, 2018 2:30 PM (30 minutes)

Presenter: Dr MACRIDIN, Alexandru (FNAL)

Contribution ID: **19**

Type: **not specified**

Introduction

Monday, November 5, 2018 9:10 AM (30 minutes)

Presenter: Dr ELSEN, Eckhard (CERN)

Contribution ID: 20

Type: **not specified**

CERN openlab

Monday, November 5, 2018 9:40 AM (30 minutes)

Presenter: Dr DI MEGLIO, Alberto (CERN)

Contribution ID: 21

Type: **not specified**

Introduction to Quantum Computing

Monday, November 5, 2018 10:10 AM (30 minutes)

Presenter: Prof. MONTANGERO, Simone (Università di Padova)

Contribution ID: 22

Type: **not specified**

NEQsys – The Northeast Quantum Systems Center supporting research and services in support of real applications

Monday, November 5, 2018 5:00 PM (30 minutes)

Presenter: Dr VAN DAM, Kerstin Kleese (BNL)

Contribution ID: 23

Type: **not specified**

Quantum Computing at Barcelona Supercomputing Center / Qilimanjaro

Monday, November 5, 2018 2:30 PM (30 minutes)

Presenter: Dr LATORRE SENTIS, Jose Ignacio (Barcelona Supercomputing Center)

Contribution ID: 24

Type: **not specified**

Reinforcement learning approach for fast qubit control

Tuesday, November 6, 2018 11:30 AM (30 minutes)

Presenter: USTYUZHANIN, Andrey (Yandex School of Data Analysis (RU))

Contribution ID: 25

Type: **not specified**

Prime numbers and quantum computers

Tuesday, November 6, 2018 2:00 PM (30 minutes)

Presenter: Dr SIERRA, German (CSIC-UAM)

Contribution ID: 26

Type: **not specified**

Quantum Communication Networks and the Quantum Flagship

Monday, November 5, 2018 5:30 PM (30 minutes)

Presenter: Prof. THEW, Robert (University of Geneva)

Contribution ID: 27

Type: **not specified**

Piano Concert

Monday, November 5, 2018 8:00 PM (2h 30m)

1st part

- * Beethoven - Sonate opus 2 n.3
- * Mozart - Fantaisie in C minor K 475
- * Schubert - Impromptu in E flat major opus 90 n.2

2nd part

- * Chopin - Préludes opus 28, n. 17, 20, 4, 3, 8, 13, 14, 15, 24
- * Mompou - Variations on a Chopin's theme
- * Debussy - Préludes of 1st book : V ... les parfums et les sons tournent dans l'air du soir ; VI ... les collines d'Anacapri ; X ... La cathédrale engloutie ; XI ... La danse de Puck ; XII ... Minstrels
- * Ravel - Sonatine

Poèmes

Presenter: Mr KUS, Jérôme

Contribution ID: 28

Type: **not specified**

Preliminary Development on HEP Data Analysis Using Quantum Computing based on IBM Qiskit (progress report)

Tuesday, November 6, 2018 4:30 PM (30 minutes)

Presenter: Dr GUAN, Wen (University of Wisconsin/Madison)