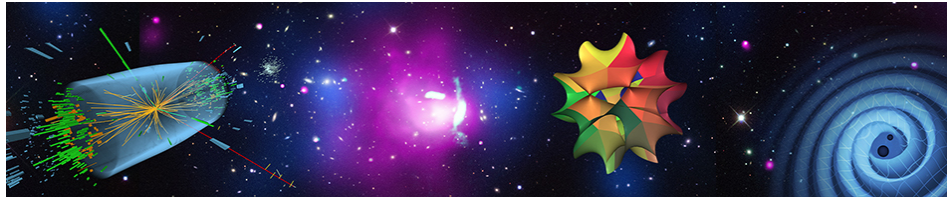


Quantum Universe Kickoff Meeting



Report of Contributions

Contribution ID: 0

Type: **not specified**

Quantum Universe Overview

Tuesday 19 March 2019 09:30 (1 hour)

Presenters: SERVANT, Geraldine (DESY and U. hamburg); LOUIS, Jan (Universität Hamburg); Mr SCHLEPER, Peter (Hamburg University)

Contribution ID: 1

Type: **not specified**

Area: Higgs

Tuesday 19 March 2019 10:30 (20 minutes)

Presenter: WEIGLEIN, Georg (DESY)

Contribution ID: 2

Type: **not specified**

Area: Dark Matter

Tuesday 19 March 2019 10:50 (20 minutes)

Presenter: HORNS, Dieter

Contribution ID: 3

Type: **not specified**

Area: Gravitational Waves

Tuesday 19 March 2019 11:40 (20 minutes)

Presenter: BRUEGGEN, Marcus

Contribution ID: 4

Type: **not specified**

Area: Quantum Theories

Tuesday 19 March 2019 12:00 (20 minutes)

Presenter: ARYUTUNOV, Gleb

Contribution ID: 5

Type: **not specified**

Platforms

Tuesday 19 March 2019 12:20 (40 minutes)

Presenter: GARUTTI, Erika (University of Hamburg)

Contribution ID: 6

Type: **not specified**

Platform for Challenges in Data Science

Presenter: KASIECZKA, Gregor (Institut fuer Experimentalphysik / UHH)

Contribution ID: 7

Type: **not specified**

Platform for Innovation in Detector Science

Presenter: GREGOR, Ingrid-Maria (DESY)

Contribution ID: 8

Type: **not specified**

Platform for Future Facilities

Presenter: GALLO, Elisabetta (DESY)

Contribution ID: 9

Type: **not specified**

Towards categorified homology

Tuesday 19 March 2019 14:00 (25 minutes)

Presenter: DYCKERHOFF, Tobias

Contribution ID: **10**

Type: **not specified**

Precision gravity: from the LHC to LISA

Tuesday 19 March 2019 14:25 (25 minutes)

Presenter: PORTO, Rafael

Contribution ID: **11**

Type: **not specified**

R&D Towards 3rd-Generation Gravitational-Wave Detectors

Tuesday 19 March 2019 14:50 (25 minutes)

Presenter: STEINLECHNER, Sebastian

Contribution ID: 12

Type: **not specified**

Mimicking cosmic high-energy beams in the lab?

Tuesday 19 March 2019 15:40 (25 minutes)

Presenters: Prof. GRÜNER, Florian (CFEL / UNI-HH); Prof. SIGL, Guenter (University of Hamburg)

Contribution ID: 13

Type: **not specified**

Dark Matter and the Higgs boson

Tuesday 19 March 2019 16:05 (25 minutes)

Presenter: HEIM, Sarah (DESY)

Contribution ID: 14

Type: **not specified**

Keynote talk: " Higgs: the new fundamental force "

Presenter: Prof. SALAM, Gavin (U. Oxford)

Contribution ID: 15

Type: **not specified**

Differential-geometric structures and problems from supergravity theories

Wednesday 20 March 2019 10:30 (30 minutes)

Presenter: SHAHBAZI, Carlos

Session Classification: Parallel Sessions Quantum Theories

Contribution ID: 16

Type: **not specified**

Integrable structures in supersymmetric gauge theories

Wednesday 20 March 2019 11:00 (30 minutes)

Presenter: NIERI, Fabrizio

Session Classification: Parallel Sessions Quantum Theories

Contribution ID: 17

Type: **not specified**

Cluster Algebras, Integrability and Scattering Amplitudes

Wednesday 20 March 2019 11:50 (35 minutes)

Presenter: Dr PAPATHANASIOU, Georgios (DESY)

Session Classification: Parallel Sessions Quantum Theories

Contribution ID: **18**

Type: **not specified**

Transgression of D-branes

Wednesday 20 March 2019 12:25 (35 minutes)

Presenter: BUNK, Severin

Session Classification: Parallel Sessions Quantum Theories

Contribution ID: **19**

Type: **not specified**

Introduction

Wednesday 20 March 2019 09:30 (10 minutes)

Session Classification: Parallel Sessions Dark Matter

Contribution ID: 20

Type: **not specified**

DM3.1, DM3.2: “beam instabilities”

Wednesday 20 March 2019 09:40 (30 minutes)

Presenter: POHL, Martin (DESY)

Session Classification: Parallel Sessions Dark Matter

Contribution ID: 21

Type: **not specified**

DM3.3: “magnetogenesis”

Wednesday 20 March 2019 10:10 (20 minutes)

Presenters: Prof. SIGL, Guenter (University of Hamburg); BANERJEE, Robi

Session Classification: Parallel Sessions Dark Matter

Contribution ID: 22

Type: **not specified**

DM1.3: WISPs at Colliders

Wednesday 20 March 2019 12:18 (14 minutes)

Presenter: FERBER, Torben (DESY)

Session Classification: Parallel Sessions Dark Matter

Contribution ID: 23

Type: **not specified**

DM2.3: Helioscope - IAXO

Wednesday 20 March 2019 10:54 (12 minutes)

Presenter: SCHNEEKLOTH, Uwe (DESY)

Session Classification: Parallel Sessions Dark Matter

Contribution ID: 24

Type: **not specified**

DM2.4: New experiments - WISPF, WISPLC

Wednesday 20 March 2019 11:06 (12 minutes)

Presenter: Mr GU, Yikun (IEXP, University of Hamburg)

Session Classification: Parallel Sessions Dark Matter

Contribution ID: 25

Type: **not specified**

DM1.5: TAIGA + Heavy Dark matter searches

Wednesday 20 March 2019 12:46 (14 minutes)

Presenter: Dr TLUCZYKONT, Martin (InstExpPh)

Session Classification: Parallel Sessions Dark Matter

Contribution ID: **26**

Type: **not specified**

DM1.3

Presenter: FERBER, Torben (DESY)

Contribution ID: 27

Type: **not specified**

DM1.1: Searches for DM using galaxy surveys

Wednesday 20 March 2019 11:50 (14 minutes)

Presenter: LISKE, Jochen

Session Classification: Parallel Sessions Dark Matter

Contribution ID: **28**

Type: **not specified**

Discussion

Contribution ID: 29

Type: **not specified**

DM1.4: Long-lived particles

Wednesday 20 March 2019 10:17 (13 minutes)

Presenter: PETERS, Krisztian (DESY)

Session Classification: Parallel Sessions Higgs

Contribution ID: 30

Type: **not specified**

DM1.4: "Improved background estimates in Dark Matter searches: Example Z(l)H(inv)"

Wednesday 20 March 2019 12:32 (14 minutes)

Presenter: Mr SABATER IGLESIAS, Jorge Andres (ATLAS)

Session Classification: Parallel Sessions Dark Matter

Contribution ID: **31**

Type: **not specified**

Introduction to H2 projects

Wednesday 20 March 2019 09:30 (5 minutes)

Presenter: GROJEAN, Christophe (DESY)

Session Classification: Parallel Sessions Higgs

Contribution ID: 32

Type: **not specified**

Searches for an extended Higgs sector

Wednesday 20 March 2019 09:35 (14 minutes)

Presenter: Dr STEFANIAK, Tim (Deutsches Elektronen-Synchrotron DESY)

Session Classification: Parallel Sessions Higgs

Contribution ID: 33

Type: **not specified**

Connections between the Higgs and the dark sectors (incl. collider searches for heavy dark sectors as well as for singlet-like Higgs boson)

Wednesday 20 March 2019 09:49 (14 minutes)

Presenter: BISHARA, Fady (DESY)

Session Classification: Parallel Sessions Higgs

Contribution ID: 34

Type: **not specified**

Implications of cosmology in Higgs physics

Wednesday 20 March 2019 10:03 (14 minutes)

Presenter: FONSECA, Nayara (DESY)

Session Classification: Parallel Sessions Higgs

Contribution ID: 35

Type: **not specified**

QURS and Early Career Council

Wednesday 20 March 2019 14:00 (15 minutes)

Presenter: MOORTGAT-PICK, Gudrid (University of Hamburg / DESY)

Session Classification: Plenary: Measures, action plans, overarching topics

Contribution ID: 36

Type: **not specified**

PR and Transfer Strategy

Wednesday 20 March 2019 14:15 (15 minutes)

Presenter: SCHNABEL, Roman

Session Classification: Plenary: Measures, action plans, overarching topics

Contribution ID: 37

Type: **not specified**

Diversity Strategy and Measures

Wednesday 20 March 2019 14:30 (15 minutes)

Presenter: HEINEMANN, Beate (DESY and Freiburg University)

Session Classification: Plenary: Measures, action plans, overarching topics

Contribution ID: 38

Type: **not specified**

Organisational Issues: Travel, Guest and Conference Procedures

Wednesday 20 March 2019 14:45 (15 minutes)

Presenters: Mr KÜHN, Christian (Universität Hamburg, Exzellenzcluster Quantum Universe); Dr GREFE, Michael (Universität Hamburg)

Session Classification: Plenary: Measures, action plans, overarching topics

Contribution ID: 39

Type: **not specified**

Introduction to H3

Wednesday 20 March 2019 11:50 (10 minutes)

Presenter: Prof. GARUTTI, Erika (University of Hamburg)

Session Classification: Parallel Sessions Higgs

Contribution ID: 40

Type: **not specified**

H3.1 —5D detectors: Calorimeters

Wednesday 20 March 2019 12:00 (10 minutes)

Presenter: SEFKOW, Felix (DESY)

Session Classification: Parallel Sessions Higgs

Contribution ID: 41

Type: **not specified**

H3.1 —5D detectors: Liquid Scintillator Detectors

Wednesday 20 March 2019 12:10 (10 minutes)

Presenter: WONSAK, Björn (UniHH Opera)

Session Classification: Parallel Sessions Higgs

Contribution ID: 42

Type: **not specified**

H3.2 —Multi-dimensional Reconstruction Algorithms

Wednesday 20 March 2019 12:20 (10 minutes)

Presenters: KASIECZKA, Gregor (Institut fuer Experimentalphysik / UHH); BEHNKE, Ties (DESY)

Session Classification: Parallel Sessions Higgs

Contribution ID: 43

Type: **not specified**

H3.3 —Next-generation Pixel Detectors and Microelectronics

Wednesday 20 March 2019 12:30 (10 minutes)

Presenter: Prof. GARUTTI, Erika (University of Hamburg)

Session Classification: Parallel Sessions Higgs

Contribution ID: 44

Type: **not specified**

Discussion

Wednesday 20 March 2019 12:40 (20 minutes)

Session Classification: Parallel Sessions Higgs

Contribution ID: 45

Type: **not specified**

DM2.1: Haloscopes - WISPDMMX, BRASS

Wednesday 20 March 2019 10:30 (12 minutes)

Presenter: HOANG NGUYEN, Le

Session Classification: Parallel Sessions Dark Matter

Contribution ID: 46

Type: **not specified**

DM 2.2: Haloscopes - MADMAX

Wednesday 20 March 2019 10:42 (12 minutes)

Presenter: Prof. GARUTTI, Erika (University of Hamburg)

Session Classification: Parallel Sessions Dark Matter

Contribution ID: 47

Type: **not specified**

High-precision predictions and vacuum stability constraints

Wednesday 20 March 2019 10:30 (10 minutes)

Presenter: KNIEHL, Bernd (II. Inst. f. Theor. Phys., Univ. Hamburg)

Session Classification: Parallel Sessions Higgs

Contribution ID: 48

Type: **not specified**

Higgs measurements and combination

Wednesday 20 March 2019 10:40 (10 minutes)

Presenter: DE WIT, Adinda (DESY)

Session Classification: Parallel Sessions Higgs

Contribution ID: 49

Type: **not specified**

Global fits and CP properties

Wednesday 20 March 2019 10:50 (10 minutes)

Presenter: Dr STEFANIAK, Tim (Deutsches Elektronen-Synchrotron DESY)

Session Classification: Parallel Sessions Higgs

Contribution ID: 50

Type: **not specified**

Higgs potential and self-interaction

Wednesday 20 March 2019 11:00 (10 minutes)

Presenter: GROJEAN, Christophe (DESY)

Session Classification: Parallel Sessions Higgs

Contribution ID: 51

Type: **not specified**

Simplified template cross sections and theory predictions

Wednesday 20 March 2019 11:10 (10 minutes)

Presenter: TACKMANN, Frank (DESY)

Session Classification: Parallel Sessions Higgs

Contribution ID: 52

Type: **not specified**

Discussion

Wednesday 20 March 2019 11:20 (10 minutes)

Session Classification: Parallel Sessions Higgs

Contribution ID: 53

Type: **not specified**

DM1.2: Constraints on DM self-interaction

Wednesday 20 March 2019 12:04 (14 minutes)

Presenter: SCHMIDT-HOBERG, Kai (DESY)

Session Classification: Parallel Sessions Dark Matter

Contribution ID: 54

Type: **not specified**

Discussion

Wednesday 20 March 2019 11:18 (12 minutes)

Session Classification: Parallel Sessions Dark Matter

Contribution ID: 55

Type: **not specified**

QU shot-noise prototype of the Einstein Telescope / Low thermal noise mirror coatings

Wednesday 20 March 2019 11:50 (15 minutes)

Presenter: SCHNABEL, Roman

Session Classification: Parallel Sessions Gravitational Waves

Contribution ID: 56

Type: **not specified**

New proposal for cooling mirror test-masses

Wednesday 20 March 2019 12:05 (10 minutes)

Presenter: KOROBKO, Mikhail

Session Classification: Parallel Sessions Gravitational Waves

Contribution ID: 57

Type: **not specified**

QU cold-mirror experiment at DESY

Wednesday 20 March 2019 12:15 (10 minutes)

Presenter: SCHAFFRAN, Jörn (FLA)

Session Classification: Parallel Sessions Gravitational Waves

Contribution ID: 58

Type: **not specified**

Highly stable light at 2 μ m for GWD

Wednesday 20 March 2019 12:25 (10 minutes)

Presenter: STEINLECHNER, Sebastian

Session Classification: Parallel Sessions Gravitational Waves

Contribution ID: 59

Type: **not specified**

Optomechanical accelerometers and heterodyne sensors for seismic noise reduction

Wednesday 20 March 2019 12:35 (10 minutes)

Presenter: GERBERDING, Oliver

Session Classification: Parallel Sessions Gravitational Waves

Contribution ID: **60**

Type: **not specified**

GW detection with broader signal response: the quantum expander

Wednesday 20 March 2019 12:45 (5 minutes)

Presenter: KOROBKO, Mikhail

Session Classification: Parallel Sessions Gravitational Waves

Contribution ID: **61**

Type: **not specified**

Final Discussion

Wednesday 20 March 2019 12:50 (10 minutes)

Session Classification: Parallel Sessions Gravitational Waves