DANCE: Dark-matter And Neutrino Computation Explored.

Report of Contributions

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

Group: needs and challenges

Tuesday, 29 October 2019 16:00 (1h 30m)

Discuss and summarize the needs and challenges, while taking live notes.

Contribution ID: **2**   Type: **not specified**

Welcome and introductions

Monday, 28 October 2019 09:00 (15 minutes)

Share basic info about workshop, Rice, and do a round table introduction.

Primary author: Prof. TUNNELL, Christopher (Rice University)

Co-author: RENSHAW, Andrew Lee (University of Houston (US))

Presenters: RENSHAW, Andrew Lee (University of Houston (US)); Prof. TUNNELL, Christopher (Rice University)

Session Classification: Introduction and Overview

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

Overview: XENON and needs for future

Monday, 28 October 2019 09:15 (10 minutes)

Primary author: TUNNELL, Christopher (Rice University)

Co-authors: BAUERMEISTER, Boris (Stockholm University);   Dr AALBERS, Jelle (Stockholm University)

Presenter: TUNNELL, Christopher (Rice University)

Session Classification: Introduction and Overview

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

Overview: LZ and needs for future

Monday, 28 October 2019 09:35 (10 minutes)

Primary author: KRECZKO, Lukasz (University of Bristol (GB))

Co-author: MONZANI, Maria Elena (SLAC National Accelerator Laboratory)

Presenter: KRECZKO, Lukasz (University of Bristol (GB))

Session Classification: Introduction and Overview

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

Journey of the data in PandaX dark matter experiments

Monday, 28 October 2019 11:05 (10 minutes)

Primary author: ZHANG, Dan (University of Maryland)

Co-author: XIE, Pengwei (Shanghai Jiao Tong University)

Presenter: ZHANG, Dan (University of Maryland)

Contribution ID: **7**   Type: **not specified**

Overview: SuperCDMS and needs for future

Monday, 28 October 2019 10:10 (10 minutes)

Presenter: CARTARO, Concetta (SLAC)

Session Classification: Introduction and Overview

Contribution ID: **8** Type: **not specified**

Overview DarkSide and challenges

Monday, 28 October 2019 09:50 (10 minutes)

Presenter: Dr IPPOLITO, Valerio (INFN Sezione di Roma (IT))

Session Classification: Introduction and Overview

Contribution ID: **9** Type: **not specified**

Simulations at LZ

Tuesday, 29 October 2019 09:00 (10 minutes)

Presenter: Dr KRECZKO, Lukasz (University of Bristol (GB))

Session Classification: Simulations

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

Status of JUNO simulation software

Tuesday, 29 October 2019 09:20 (15 minutes)

Primary author: Dr LIN, Tao (Institute of High Energy Physics, CAS)

Presenter: Dr LIN, Tao (Institute of High Energy Physics, CAS)

Session Classification: Simulations

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

NEST

Tuesday, 29 October 2019 11:05 (15 minutes)

Primary author: RISCHBIETER, Gregory

Co-author: SZYDAGIS, Matthew (University at Albany)

Presenter: RISCHBIETER, Gregory

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

Discussion of simultaneous calibration fits

Monday, 28 October 2019 11:20 (15 minutes)

Presenter: BRODSKY, Jason (Lawrence Livermore National Laboratory)

Session Classification: Analysis

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

Fast high-dimensional likelihoods flamedisx

Monday, 28 October 2019 12:05 (10 minutes)

Presenter: AALBERS, Jelle (Stockholm University)

Session Classification: Analysis

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

Introduction to Open Science Grid and Pegasus

Monday, 28 October 2019 15:00 (15 minutes)

Presenter: RYNGE, Mats (RENCI UNC Chapel Hill)

Session Classification: Data acquisition, processing, management

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

Data processing for DEAP-3600: Looking for a needle in a haystack without suffocating in the hay

Monday, 28 October 2019 14:00 (15 minutes)

Presenter: JILLINGS, Chris (SNOLAB)

Session Classification: Data acquisition, processing, management

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

Collider Community Building toward IRIS-HEP

Monday, 28 October 2019 17:00 (15 minutes)

Primary author: ELMER, Peter (Princeton University (US))

Presenter: ELMER, Peter (Princeton University (US))

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

NOvA Software Infrastructure

Monday, 28 October 2019 10:55 (10 minutes)

Presenters: Dr DAVIES, Gavin (Indiana University); DAVIES, Gavin (Lancaster University); DAVIES, Gavin (Imperial College (GB))

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

Current state of accelerated computing in Python

Tuesday, 29 October 2019 12:15 (15 minutes)

Primary author: Dr SEIBERT, Stan (Anaconda Inc)

Presenter: Dr SEIBERT, Stan (Anaconda Inc)

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

Geant4 capabilities for DM/neutrino

Tuesday, 29 October 2019 10:05 (15 minutes)

Current capabilities and planned features.

Presenter: WRIGHT, Dennis Herbert

Session Classification: Simulations

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

GPU powered optical simulations (Opticks)

Tuesday, 29 October 2019 09:40 (15 minutes)

Presenter: Dr BLYTHE, Simon (Institute of High Energy Physics, Bejing)

Session Classification: Simulations

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

XENONnT DAQ

Monday, 28 October 2019 14:20 (15 minutes)

Presenter: AALBERS, Jelle (Stockholm University)

Session Classification: Data acquisition, processing, management

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

DAQ Direction for SuperCDMS

Monday, 28 October 2019 14:35 (10 minutes)

Primary author: Prof. ROBERTS, Amy (UC Denver)

Presenter: Prof. ROBERTS, Amy (UC Denver)

Session Classification: Data acquisition, processing, management

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

Machine Learning in EXO/nEXO

Monday, 28 October 2019 16:00 (20 minutes)

Status, Outlook and Needs

Primary author: OSTROVSKIY, Igor (The University of Alabama)

Presenter: OSTROVSKIY, Igor (The University of Alabama)

Session Classification: Machine Learning #1

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

Machine Learning in LUX

Monday, 28 October 2019 16:30 (15 minutes)

Status, needs and outlook

Primary author: KRAVITZ, Scott (Lawrence Berkeley National Laboratory)

Presenter: KRAVITZ, Scott (Lawrence Berkeley National Laboratory)

Session Classification: Machine Learning #1

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

DIDACT: Machine Learning Institute for Physical Sciences

Monday, 28 October 2019 16:45 (10 minutes)

Primary authors: Prof. SHATKAY, Hagit (University of Delaware); Prof. BAJWA, Waheed (Rutgers)

Presenters: Prof. SHATKAY, Hagit (University of Delaware); Prof. BAJWA, Waheed (Rutgers)

Session Classification: Machine Learning #1

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

Science Gateways Community Institute

Monday, 28 October 2019 12:15 (10 minutes)

Primary author: ZENTNER, Michael (UCSD)

Presenter: ZENTNER, Michael (UCSD)

Session Classification: Analysis

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

Machine Learning and the LHC

Tuesday, 29 October 2019 11:50 (20 minutes)

Presenter: NACHMAN, Ben (Lawrence Berkeley National Lab. (US))

Session Classification: Machine Learning #2

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

Machine Learning and NOvA

Tuesday, 29 October 2019 11:25 (20 minutes)

Primary author: PSIHAS, Fernanda (University of Texas at Arlington)

Presenter: PSIHAS, Fernanda (University of Texas at Arlington)

Session Classification: Machine Learning #2

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

Pheno non-standard neutrino interactions

Tuesday, 29 October 2019 14:35 (3 minutes)

Primary author: THOMPSON, Adrian (Texas A&M University)

Presenter: THOMPSON, Adrian (Texas A&M University)

Session Classification: Lightning Talks

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

Dark Matter Signals at CEvNS Experiments

Tuesday, 29 October 2019 14:25 (3 minutes)

Primary author: LIAO, Shu (Texas A&M University)

Presenter: LIAO, Shu (Texas A&M University)

Session Classification: Lightning Talks

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

DUNE BSM

Tuesday, 29 October 2019 14:15 (3 minutes)

Presenters: Dr HIGUERA, Aaron (University of Houston (US)); HIGUERA, Aaron (Fermilab); HIGUERA, Aaron (University of Houston)

Session Classification: Lightning Talks

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

LAr Simulations

Tuesday, 29 October 2019 14:20 (3 minutes)

Presenter: POUDEL, Sagar (University of Houston)

Session Classification: Lightning Talks

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

Machine learning in EXO/nEXO #2

Monday, 28 October 2019 16:20 (10 minutes)

Presenter: ELBELTAGI, Mohamed (Carleton)

Session Classification: Machine Learning #1

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

SNEWS

Primary author: RENSHAW, Andrew Lee (University of Houston (US))

Presenter: RENSHAW, Andrew Lee (University of Houston (US))

Session Classification: Lightning Talks

Contribution ID: 49 Type: **not specified**

Automated distributed computing for Project8

Monday, 28 October 2019 14:50 (10 minutes)

Presenters: Dr SCHRAM, Malachi (Pacific Northwest National Laboratory); SCHRAM, Malachi

Session Classification: Data acquisition, processing, management

Contribution ID: **50**   Type: **not specified**

What aren't we talking about that we should?

Monday, 28 October 2019 11:45 (10 minutes)

Lessons from a person who transitioned from neutrinos and dark matter software to industry

Primary author: Dr SEIBERT, Stan (Anaconda Inc)

Co-authors: SEIBERT, Stanley (Univ); SEIBERT, Stanley (Univ)

Presenters: Dr SEIBERT, Stan (Anaconda Inc); SEIBERT, Stanley (Univ); SEIBERT, Stanley (Univ)

Session Classification: Analysis

Contribution ID: **51** Type: **not specified**

PandaX

Tuesday, 29 October 2019 09:10 (5 minutes)

Presenter: ZHANG, Dan (University of Maryland)

Session Classification: Simulations

Contribution ID: **52**   Type: **not specified**

Overview: nEXO

Tuesday, 29 October 2019 14:00 (10 minutes)

Primary author: SANGIORGIO, samuele

Presenter: SANGIORGIO, samuele

Session Classification: Lightning Talks