

Snowmass at LBNL

Report of Contributions

Contribution ID: 1

Type: **not specified**

Panel discussion: beyond ton-scale NLDBD

Friday, 10 December 2021 13:00 (1 hour)

Presenters: POON, Alan; MCKINSEY, Daniel; OREBI GANN, Gabriel (UC Berkeley / LBNL); KAPTANOGLU, Tanner; MEI, Yuan; KOLOMENSKY, Yury

Session Classification: Neutrinos

Contribution ID: 2

Type: **not specified**

Panel discussion: leveraging the 4th DUNE cavern

Friday, 10 December 2021 14:00 (1 hour)

Presenters: WILKINSON, Callum (LBNL); DWYER, Daniel; OREBI GANN, Gabriel (UC Berkeley / LBNL); LESKO, Kevin (LBNL); ASKINS, Morgan

Session Classification: Neutrinos

Contribution ID: 3

Type: **not specified**

Introduction

Friday, 10 December 2021 13:00 (10 minutes)

Presenter: NACHMAN, Benjamin

Session Classification: High Energy Colliders

Contribution ID: 4

Type: **not specified**

High-Energy e+e-/gamma-gamma and low-energy demonstrator

Friday, 10 December 2021 13:10 (50 minutes)

Continue developing quantitative numbers and physics case at 10 TeV scale towards white paper and for inclusion in Energy and Theory frontier.

Presenters: NACHMAN, Benjamin; SCHROEDER, Carl; JACOBS, Peter; KNAPEN, Simon; PAGAN GRISO, Simone

Session Classification: High Energy Colliders

Contribution ID: 5

Type: **not specified**

High-Energy Hadron Colliders

Friday, 10 December 2021 14:00 (30 minutes)

Presenter: FERRACIN, Paolo

Session Classification: High Energy Colliders

Contribution ID: 6

Type: **not specified**

High-Energy Muon Collider

Friday, 10 December 2021 14:40 (40 minutes)

Presenters: LI, Derun; RESSEGUIE, Elodie; KRIZKA, Karol; CRAIG, Nathaniel

Session Classification: High Energy Colliders

Contribution ID: 7

Type: **not specified**

Community Frontier lightning talks

Friday, 10 December 2021 11:30 (25 minutes)

Lightning talks to introduce IDEA work happening at LBNL, and to introduce the Community Frontier efforts ongoing at LBNL.

Speakers:

Asmita Patel - IDEA activities in ATAP

Alex Kim - IDEA activities in the Physics Division

Erin Hansen - Climate of the Field in CommF

Vetri Velan - Physics Education in CommF

Lotti Obst-Heubl - Industry Engagement in CommF

Presenters: KIM, Alex; PATEL, Asmita; HANSEN, Erin; OBST-HUEBL, Lieselotte; Dr KRAVITZ, Scott (Lawrence Berkeley National Lab); VELAN, Vetri

Session Classification: Community Engagement

Contribution ID: 8

Type: **not specified**

Community Frontier discussion

Friday, 10 December 2021 11:55 (20 minutes)

Discussion with speakers and workshop participants.

- What are key topics LBNL should focus on?
- What work is being done at LBNL that could be incorporated (or lessons learned from) into Snowmass CommF work?

Session Classification: Community Engagement

Contribution ID: 9

Type: **not specified**

Areas to double down

Friday, 10 December 2021 15:45 (20 minutes)

How can we facilitate collaboration across domain science areas, e.g. ML and simulation

Uncertainty quantification / robustness, in particular, early experimental results with ML

Session Classification: Machine Learning / Computing

Contribution ID: **10**

Type: **not specified**

Areas to expand

Friday, 10 December 2021 16:10 (20 minutes)

Reinforcement learning

Fast ML?

- AI inference chips on detector?
- We have a lot of experience with electronics, why not fast ML?
- Offline fast inference (in particular, at NERSC and related facilities)

Session Classification: Machine Learning / Computing

Contribution ID: 11

Type: **not specified**

Building Expertise

Friday, 10 December 2021 16:35 (20 minutes)

Trying to keep track of existing efforts in ML and ML \intersect physics

Facilitating informal interactions / workshop-type

- Technical details from various

General register for expertise?

Session Classification: Machine Learning / Computing

Contribution ID: 12

Type: **not specified**

Heavy Dark Matter

Friday, 10 December 2021 09:15 (15 minutes)

Presenter: CARNEY, Dan (LBNL)

Session Classification: Dark Matter

Contribution ID: **13**

Type: **not specified**

LXe G3

Friday, 10 December 2021 09:30 (15 minutes)

Presenter: LESKO, Kevin (LBNL)

Session Classification: Dark Matter

Contribution ID: 14

Type: **not specified**

LZ Upgrades - CrystaliZe

Friday, 10 December 2021 09:45 (15 minutes)

Presenter: SORENSEN, Peter (LBNL)

Session Classification: Dark Matter

Contribution ID: 15

Type: **not specified**

LZ Upgrades - HydroX

Friday, 10 December 2021 10:00 (15 minutes)

Presenter: MANALAYSAY, Aaron (LBNL)

Session Classification: Dark Matter

Contribution ID: 16

Type: **not specified**

TESSERACT Project & HeRALD detector

Friday, 10 December 2021 10:15 (15 minutes)

Presenter: MCKINSEY, Dan (UCB/LBNL)

Session Classification: Dark Matter

Contribution ID: 17

Type: **not specified**

SPICE

Friday, 10 December 2021 10:30 (15 minutes)

Presenter: PYLE, Matt (UCB/LBNL)

Session Classification: Dark Matter

Contribution ID: **18**

Type: **not specified**

TESSERACT R&D

Friday, 10 December 2021 10:45 (15 minutes)

Presenter: LI, Xinran (LBNL)

Session Classification: Dark Matter

Contribution ID: **19**

Type: **not specified**

Dark Matter - Theory

Contribution ID: 20

Type: **not specified**

Dark Matter Theory

Friday, 10 December 2021 09:00 (15 minutes)

Presenter: KNAPEN, Simon

Session Classification: Dark Matter

Contribution ID: 21

Type: **not specified**

zoom details
<https://lbnl.zoom.us/j/97098057107?pwd=YUQ0THM0M2gyVlg1VzBzVTEzMkRNQT09>

Join Zoom Meeting

<https://lbnl.zoom.us/j/97098057107?pwd=YUQ0THM0M2gyVlg1VzBzVTEzMkRNQT09>

Meeting ID: 970 9805 7107

Passcode: 287407

Session Classification: Dark Matter