

Snowmass CompF4 Topical Group Workshop

Report of Contributions

Contribution ID: 1

Type: **not specified**

Intro and topical group overview

Thursday, 7 April 2022 09:00 (20 minutes)

Presenter: BHIMJI, Wahid (NERSC, Berkeley Lab)

Contribution ID: 2

Type: **not specified**

Discussion

Thursday, 7 April 2022 13:20 (30 minutes)

Contribution ID: 3

Type: **not specified**

Plan for tomorrow

Thursday, 7 April 2022 13:50 (10 minutes)

Contribution ID: 4

Type: **not specified**

Wrap up and Next Steps Towards Report

Friday, 8 April 2022 13:40 (20 minutes)

Contribution ID: 5

Type: **not specified**

Evolution of resource provision models and the role of HPC

Thursday, 7 April 2022 12:25 (10 minutes)

Presenter: BHIMJI, Wahid (NERSC, Berkeley Lab)

Session Classification: Processing

Contribution ID: 6

Type: **not specified**

Heterogeneous hardware adoption and portability

Thursday, 7 April 2022 12:35 (5 minutes)

Presenter: KORTELAJNEN, Matti (Fermilab)

Session Classification: Processing

Contribution ID: 7

Type: **not specified**

Authorization and Authentication Evolution

Thursday, 7 April 2022 12:40 (5 minutes)

Presenter: BOCKELMAN, Brian (Morgridge Institute for Research)

Session Classification: Processing

Contribution ID: 8

Type: **not specified**

Discussion

Thursday, 7 April 2022 12:45 (5 minutes)

Session Classification: Processing

Contribution ID: 9

Type: **not specified**

Analysis Facilities for HL-LHC (NSF)

Thursday, 7 April 2022 11:04 (7 minutes)

Presenters: BRYANT, Lincoln (University of Chicago); GARDNER, Robert (University of Chicago)

Session Classification: Analysis Facilities: Discussion

Contribution ID: **10**

Type: **not specified**

Analysis Facilities for HL-LHC (DOE)

Thursday, 7 April 2022 10:57 (7 minutes)

Presenter: BENJAMIN, Doug (Brookhaven National Laboratory (US))

Session Classification: Analysis Facilities: Discussion

Contribution ID: 11

Type: **not specified**

Leveraging Cloud Native for designing, building and operating analysis facilities for USCMS

Thursday, 7 April 2022 11:11 (7 minutes)

Presenter: ACOSTA, Maria

Session Classification: Analysis Facilities: Discussion

Contribution ID: 12

Type: **not specified**

Analysis Cyberinfrastructure: Challenges and Opportunities

Thursday, 7 April 2022 10:50 (7 minutes)

Presenter: LANNON, Kevin (University of Notre Dame)

Session Classification: Analysis Facilities: Discussion

Contribution ID: 13

Type: **not specified**

Data Storage for HEP Experiments in the Era of High-Performance Computing

Thursday, 7 April 2022 13:05 (10 minutes)

<https://arxiv.org/abs/2203.07885>

Presenter: BASHYAL, Amit (Argonne National Lab)

Session Classification: Storage

Contribution ID: 14

Type: **not specified**

Overview of Storage Topics

Thursday, 7 April 2022 12:50 (15 minutes)

Presenter: MALTZAHN, Carlos (UC Santa Cruz)

Session Classification: Storage

Contribution ID: 15

Type: **not specified**

Upcoming Storage Features in ROOT

Friday, 8 April 2022 09:00 (15 minutes)

Presenters: BLOMER, Jakob (CERN); CANAL, Philippe (FERMILAB)

Session Classification: Storage

Contribution ID: 16

Type: **not specified**

CompF3 (Machine Learning) Overlaps

Thursday, 7 April 2022 11:30 (10 minutes)

Presenter: RANKIN, Dylan (Massachusetts Institute of Technology)

Session Classification: AI Hardware

Contribution ID: 17

Type: **not specified**

IF04 (TDAQ) Overlaps

Thursday, 7 April 2022 11:40 (10 minutes)

Presenter: DEIANA, Allison

Session Classification: AI Hardware

Contribution ID: **18**

Type: **not specified**

Overview of AI Hardware

Thursday, 7 April 2022 11:20 (10 minutes)

Presenters: DUARTE, Javier (University of California San Diego); TRAN, Nhan (FNAL)

Session Classification: AI Hardware

Contribution ID: 19

Type: **not specified**

Processing Overview

Thursday, 7 April 2022 12:20 (5 minutes)

Session Classification: Processing

Contribution ID: 20

Type: **not specified**

Managing Edge Services with SLATE

Thursday, 7 April 2022 10:05 (5 minutes)

Presenter: GARDNER, Robert (University of Chicago)

Session Classification: Edge Services

Contribution ID: 21

Type: **not specified**

Overview of Edge Services

Thursday, 7 April 2022 09:50 (15 minutes)

Presenters: WEAVER, Benjamin (NOIRLab); RIND, Ofer (BNL)

Session Classification: Edge Services

Contribution ID: 22

Type: **not specified**

Computational Storage

Friday, 8 April 2022 09:15 (15 minutes)

What is Computational Storage? Who is Samsung's Memory Solutions Lab, what have we done, and what do we think we can do in the upcoming years.

Presenter: CARGNINI, Vitorio (Samsung)

Session Classification: Storage

Contribution ID: 23

Type: **not specified**

Distributed data management at JGI

Friday, 8 April 2022 09:30 (15 minutes)

The DOE Joint Genome Institute is a user facility that generates genome sequence data and analysis products for the environmental research community. In an effort to be more resilient to outages, JGI has recently shifted to a distributed computing model. I will briefly describe our hierarchical data management system that complements our centralized workflow system.

Presenter: FAGNAN, Kjersten (LBL)

Session Classification: Storage

Contribution ID: 24

Type: **not specified**

Data Context and Sharded Data - Erasure Coding for HDD Computational Storage

Friday, 8 April 2022 09:45 (15 minutes)

Discussion of the need for data context at the storage device to perform data layout aware computations on the device. An example of structured data stored via an erasure coded data availability scheme and how it destroys data context at the device. Possible solutions are described.

Presenter: KUFELDT, Philip (Seagate)

Session Classification: Storage