

4th US ATLAS HPC Meeting

Report of Contributions

Contribution ID: 1

Type: **not specified**

Reports from Priority Areas

Friday, 27 September 2019 12:00 (1 hour)

10' per area including discussion

Session Classification: Breakouts

Contribution ID: 3

Type: **not specified**

Welcome, Logistics

Thursday, 26 September 2019 09:00 (5 minutes)

Presenter: CALAFIURA, Paolo

Session Classification: Introduction

Contribution ID: 4

Type: **not specified**

Summary of past US ATLAS HPC meetings, Goals of the meeting

Thursday, 26 September 2019 09:10 (20 minutes)

Presenter: WENAUS, Torre (BNL)

Session Classification: Introduction

Contribution ID: 5

Type: **not specified**

ALCF Early Science Project

Thursday, 26 September 2019 09:35 (15 minutes)

Presenter: LEGGETT, Charles (LBNL)

Session Classification: Introduction

Contribution ID: 6

Type: **not specified**

BNL CSI FastCaloSim GPU porting

Thursday, 26 September 2019 11:15 (15 minutes)

Presenter: LIN, Meifeng (BNL)

Session Classification: Introduction

Contribution ID: 7

Type: **not specified**

NERSC-ATLAS projects

Thursday, 26 September 2019 09:55 (15 minutes)

Presenter: BHIMJI, Wahid

Session Classification: Introduction

Contribution ID: 8

Type: **not specified**

ECP GeantX Pilot

Thursday, 26 September 2019 10:55 (15 minutes)

Presenter: CANAL, Philippe (FNAL)

Session Classification: Introduction

Contribution ID: 9

Type: **not specified**

OLCF BigPanda Collaboration

Thursday, 26 September 2019 10:15 (15 minutes)

Presenters: KLIMENTOV, Alexei (BNL); WELLS , Jack (ORNL)

Session Classification: Introduction

Contribution ID: **10**

Type: **not specified**

ESnet HEP Network Blueprint project

Thursday, 26 September 2019 12:45 (15 minutes)

Presenter: GUOK, Chin (ESnet)

Session Classification: Introduction

Contribution ID: 11

Type: **not specified**

ML for Tracking in Exa.TrkX

Thursday, 26 September 2019 11:35 (15 minutes)

Presenter: FARRELL, Steven

Session Classification: Introduction

Contribution ID: 12

Type: **not specified**

BNL CSI: Training and optimizing ML algorithms at scale

Thursday, 26 September 2019 13:35 (15 minutes)

Presenter: MALIK, Abid (BNL)

Session Classification: Introduction

Contribution ID: **13**

Type: **not specified**

ATLAS I/O on HPC

Thursday, 26 September 2019 15:30 (40 minutes)

A discussion on I/O challenges for HPC production jobs. Includes Event I/O of course (TMPIRoot, HDF5, object stores like HEPnOS, etc) but also DB access for reconstruction jobs, lustre and small files. containers and job initialization.

Presenters: LOCKWOOD, Glen (NERSC); VAN GEMMEREN, Peter (ANL)

Session Classification: US ATLAS Computing Challenges

Contribution ID: 14

Type: **not specified**

Job scheduling on next generation HPCs

Thursday, 26 September 2019 17:20 (40 minutes)

event service, raythena, yoda, pilot 2, jumbo jobs and their interactions

Presenters: BENJAMIN, Doug (ANL); MUSKINJA, Miha; THOMAS, Rollin (NERSC)

Session Classification: US ATLAS Computing Challenges

Contribution ID: 15

Type: **not specified**

Porting algorithms to GPU

Thursday, 26 September 2019 16:30 (40 minutes)

What is the goal? Reduce latency when running trigger algs, increase throughput on HPCs

What are the challenges? Insufficient parallelism, code size, ...

Examples: track seeding, Fast Chain, Geant X

CCE Portable Parallelization Strategies

ML algorithms (Jet Classification, Tracking,...)

...

Presenters: FRIESEN, Brian (NERSC); LEGGETT, Charles (LBNL)

Session Classification: US ATLAS Computing Challenges

Contribution ID: 17

Type: **not specified**

Networking and Remote Data Access

Thursday, 26 September 2019 14:00 (40 minutes)

Includes ESnet/ATLAS/CMS network studies, iDDS and other data lake initiatives, potentially remote data access from Tape Carousel.

Presenters: MONGA, Inder (ESnet); DE, Kaushik (UTA); MCKEE, Shawn (UMich); WENAUS, Torre (BNL)

Session Classification: US ATLAS Computing Challenges

Contribution ID: **18**

Type: **not specified**

HPC labs and LHC computing

Friday, 27 September 2019 09:00 (1 hour)

A discussion on avenues to continue collaborating with the HPC labs, how to be involved in the various “Early Science” initiatives, and how to secure long-term allocations for ATLAS.

Join Zoom Meeting

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Meeting ID: 338 133 490

Find your local number: <https://zoom.us/u/auVyrMbBC>

Session Classification: Breakouts

Contribution ID: **19**

Type: **not specified**

ATLAS, CCE, and IRIS-HEP

Friday, 27 September 2019 10:20 (1h 30m)

How can ATLAS contribute effectively to the NSF and DOE initiatives dedicated to cross-cutting HEP computing and software R&D? How do we make sure these initiatives are and stay aligned with ATLAS R&D towards HL-LHC?

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Session Classification: Breakouts

Contribution ID: 20

Type: **not specified**

XCache at ESnet Testbed

Thursday, 26 September 2019 13:05 (10 minutes)

Presenters: SIM, Alex (ESnet); YANG, Wei (SLAC)

Session Classification: Introduction

Contribution ID: 21

Type: **not specified**

New data transfer and access paradigm from ATLAS and LHC

Thursday, 26 September 2019 13:20 (10 minutes)

Presenter: YANG, Wei (SLAC)

Session Classification: Introduction

Contribution ID: 22

Type: **not specified**

Discussion

Friday, 27 September 2019 09:00 (1 hour)

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Session Classification: Breakouts

Contribution ID: 23

Type: **not specified**

Discussion

Friday, 27 September 2019 08:00 (2 hours)

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Session Classification: Breakouts

Contribution ID: 24

Type: **not specified**

Discussion

Friday, 27 September 2019 09:00 (2 hours)

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Session Classification: Breakouts