



Welcome and Introduction

Joint USATLAS - USCMS Session on Facility R&D
March 17, 2020

Background

Since the publication of the CWP roadmap we have a large number of HL-LHC Software R&D programs launched.

In the US alone we have

- HL-LHC R&D in USLHC Ops
- IRIS-HEP (NSF)
- CCE (DOE)

And

- NSF OAC CI projects, Lab LDRDs, ...
- Advanced networking
- AI is coming

arXiv:1712.06982v5 [physics.comp-ph] 19 Dec 2018

HSF-CWP-2017-01
December 15, 2017

A Roadmap for HEP Software and Computing R&D for the 2020s

HEP Software Foundation¹


ABSTRACT: Particle physics has an ambitious and broad experimental programme for the coming decades. This programme requires large investments in detector hardware, either to build new facilities and experiments, or to upgrade existing ones. Similarly, it requires commensurate investment in the R&D of software to acquire, manage, process, and analyse the shear amounts of data to be recorded. In planning for the HL-LHC in particular, it is critical that all of the collaborating stakeholders agree on the software goals and priorities, and that the efforts complement each other. In this spirit, this white paper describes the R&D activities required to prepare for this software upgrade.

Facility R&D

- What are the impacts on US LHC Distributed Computing Facilities?
- Which foundational R&D in distributed CI are needed to meet desired capabilities & models?
- What new thinking is emerging for future LHC computing facilities, the WLCG, etc?


Joint US ATLAS - US CMS Meeting on Facility R&D
Tuesday 17 Mar 2020, 10:00 → 13:55 America/Chicago
James Letts (Univ. of California San Diego (US)), Robert William Gardner Jr (University of Chicago (US))

Description This is a virtual meeting replacing the joint session at the rescheduled OSG All Hands Meeting at Oklahoma University

Videoconference Rooms  Joint_US_ATLAS_US_CMS_Computing_Facilities_Technical

10:00 → 10:10 **Welcome & Intro**
Speakers: James Letts (Univ. of California San Diego (US)), Robert William Gardner Jr (University of Chicago (US))

10:10 → 10:40 **Computing model evolution - view from ATLAS**
Speaker: Paolo Calafiura (Lawrence Berkeley National Lab. (US))

10:40 → 11:10 **Computing model evolution - view from CMS**
Speakers: Frank Wuerthwein (UCSD), Frank Wuerthwein (Univ. of California San Diego (US)), Frank Wurthwein (UCSD)
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11:10 → 11:40 **Future Analysis Systems**
Speaker: Kyle Stuart Cranmer (New York University (US))

11:45 → 12:15 **Break**

12:15 → 12:35 **An Elastic Analysis Facility built with Kubernetes**
Speaker: Maria Acosta (Fermi National Accelerator Laboratory)

12:35 → 12:55 **WLCG Kubernetes & IRIS-HEP SSL**
Speaker: Lincoln Bryant (University of Chicago)

12:55 → 13:15 **Containerizing Tier3 with SLATE**
Speaker: Kenyi Paolo Hurtado Anampa (University of Notre Dame (US))

13:15 → 13:35 **Storage R&D**
Speaker: Hironori Ito (Brookhaven National Laboratory (US))

13:35 → 13:55 **Coffea-Dask/Spark Demonstrator**
Speaker: Carl Lundstedt (University of Nebraska Lincoln (US))