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A Lightweight Analysis Facility for the DARWIN Collaboration

Wednesday 17 April 2024 14:20 (25 minutes)

A robust computing infrastructure is essential for the success of scientific collaborations. However, smaller collaborations often lack the resources to establish and maintain such an infrastructure, resulting in a fragmented analysis environment with varying solutions for different members. This fragmentation can lead to inefficiencies, hinder reproducibility, and create collaboration challenges.

We present an analysis facility for the DARWIN collaboration, a new dark matter experiment, designed to be lightweight with minimal administrative overhead while providing a common entry point for all DARWIN collaboration members. The facility setup serves as a blueprint for other collaborations, that want to provide a common analysis facility for their members. Grid computing and storage resources are integrated into the facility, allowing for distributed computing and a common entry point for storage. The authentication and authorization infrastructure for all services is token-based, using an Indigo IAM instance.

This talk will discuss the architecture of the facility, its provided services, the DARWIN collaboration's experience with it, and how it can serve as a sustainable blueprint for other collaborations.

Desired slot length

15

Speaker release

Yes

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