

Welcome!

Ed Daw, Elena Gramellini

Thank you!!!

A big thank you to Ed for hosting and Paul for being on the ground helping and to all the speakers who have prepared material.

Scope of the workshop

Hope to initiate a fruitful collaboration on the software side of haloscope analysis.... In the UK and possibly beyond.

LArSoft Collaboration

Software for LArTPCs

LArSoft

LArSoft Meetings

Concepts in LArSoft

HPC and LArSoft

Machine Learning

Image



LArSoft

The Liquid Argon Software (LArSoft) Collaboration develops and supports a shared base of simulation and reconstruction software across liquid argon time projection chamber (LArTPC) neutrino experiments. LArSoft is both the project/collaboration and the body of shared code.

The LArSoft Collaboration is driven by the needs of the participating experiments as represented by the **steering group**, which consists of spokespeople of the experiments as well as representatives from Fermilab's Scientific Computing and Neutrino Divisions. A core project team of physicists and computing professionals, hosted by Fermilab, provides organizational and technical leadership, software infrastructure and expertise, and software management and distribution services to the



<https://larsoft.org/>

Today

Fire safety?

10:00	Welcome coffee + introductions	10:00 - 10:15
	Axion Theory 101 (and 102) -- Jamie	10:15 - 10:45
	Overview of Analysis Strategy -- Ed	10:45 - 11:05
11:00	Leg stretch	11:05 - 11:10
	Analysis Workflow Intro -- Claude	11:10 - 12:00

13:00	The Sheffield Software Workflow -- Mitch	University of Sheffield	13:00 - 13:30
	The Manchester Software Workflow -- Elena & Blue	University of Sheffield	13:30 - 14:00
14:00	Pitfalls and Lessons Learned -- Paul	University of Sheffield	14:00 - 15:00
15:00	Unification discussion -- Moderator: Elena	University of Sheffield	15:15 - 16:15
16:00	Hands-On Session: python & mathematica -- Moderator: Elena	University of Sheffield	16:15 - 17:45
17:00			

Tomorrow

09:00	Hands-On Session 2: Signal Production on FPGA -- Ed-Mitch
10:00	
11:00	Hands-On Session: python & mathematica -- Moderator: Elena
12:00	

University of Sheffield 09:00 - 11:00

University of Sheffield 11:00 - 12:00

13:00	Hands-On Session: python & mathematica -- Moderator: Elena
14:00	Sheffield HW&DAQ -- Annora
	Manchester HW&DAQ -- Matt & Ted
15:00	Future Bids & Collaborations Discussion
16:00	Sheffield Lab Tour
17:00	

University of Sheffield 13:00 - 14:00

University of Sheffield 14:00 - 14:30

University of Sheffield 14:30 - 15:00

University of Sheffield 15:00 - 16:00

University of Sheffield 16:00 - 17:00

Thursday

09:00

Planning of future work -- Moderator: Elena

10:00

11:00

University of Sheffield

09:00 - 12:00

12:00

Logistic

Locations

Tue: UoS-3 Solly Street - Conference Room (20) [Remote link](#)

Wed 9-10:30: UoS-Arts Tower-111 - Meeting Room (22) [Remote link](#)

Wed 10:30-13: UoS-Arts Tower-103 - Meeting Room (14) [Remote link](#)

Wed 14-17: UoS-Arts Tower 105 - Meeting Room 105 (14) [Remote link](#)

Dinner: [the York Sheffield](#)



Thu: 9-12: UoS-3 Solly Street - Conference Room (20) [Remote link](#)

Some idea for collaboration

[Logbook for collaborative work](#)