

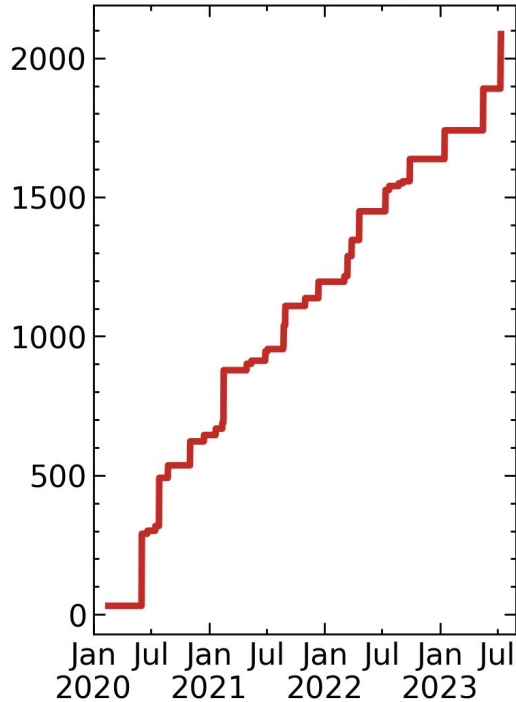
HSF Training WG

Plans for 2024 HSF Coordination Meeting Feb 15, 2024

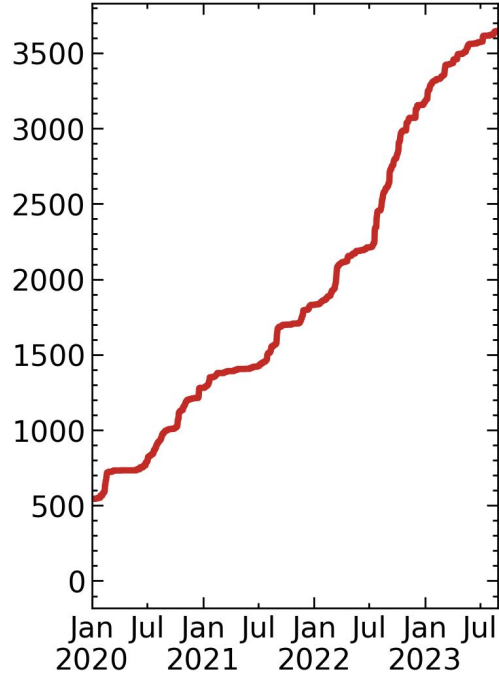
Holly Szumila-Vance, Jim Pivarski, Valeriia Lukashenko,
Alexander Moreno Briceño

Consistent output and steady community growth

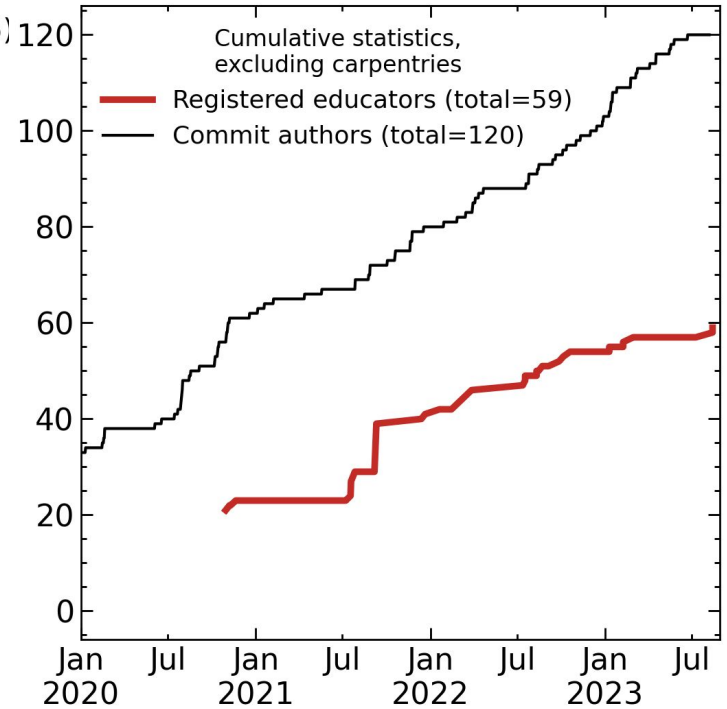
Cumulative registrations
(total=2,086)



Material additions/revisions
(unique; excluding SWC; total=3,645)



Educators





Weekly meetings

October 2022	
24 Oct	Training WG Planning Meeting
17 Oct	Training WG Planning Meeting
10 Oct	Training WG Planning Meeting
03 Oct	Training WG Planning Meeting
September 2022	
26 Sept	Training WG Planning Meeting
19 Sept	Training WG Planning Meeting
12 Sept	Training WG Planning Meeting
06 Sept	HSF Training Containerization Hackathon
05 Sept	Training WG Planning Meeting

Increasing our reach

HSF Training @HSFTraining · Sep 12
77 participants joined our event in July! Learning #python, #bash, #git, #ROOT, #ScikitHEP. Thanks to @raynamharris, @mightaswellcode, Rayvn Manuel, Alexander Moreno and @gullo99 for teaching!



Platforms



Community pages

Our community

Monthly Hackathons

The big goal!
Training in software and computing is an essential ingredient for the success of any HEP experiment. As most experiments have similar basic prerequisites we want to join our efforts and create one introductory software training curriculum that serves HEP newcomers from all experiments. This curriculum is made up of independent training modules and should contain all software skills needed as they enter the field while installing best practices for writing sustainable software.

We have started this work [here](#) and have completed and tested several of our modules to great success.

Recognition

Authors

Thanks goes to these wonderful people (emoji key) who contributed to the content of the lesson:

How-to guides

HSF Training Workshop Checklist

Let's streamline our organization and make sure we don't forget anything!

Note: there's also a [Hackathon checklist](#).

Before the workshop

Setting up documents and more

- Create a new folder in our drive in the folder "20YY/our_workshops/YYMM_name_of_workshop"
- Copy this document there and call it "YYMM_name_checklist"
- Create an overview document "YYMM_name_planning". Use this for all the relevant planning info
- Create a document "YYMM_name_post-mortem". Collect everything that goes wrong in this document

Recruitment

- Create a chat channel for this event
- Announce on twitter
- Announce on slack/discord



- Thanks to **Killian Lieret, Wouter Deconinck and Jason Vaetch!**
- Welcome to **Jim Pivarski, Holly Szumila-Vance and Valeriia Lukashenko** as new conveners!
- Switch to **intermediate target** audiences and **HEP-specific** tools, and teach more **scikit-HEP & IRIS-HEP packages**
- Coordinate with **new initiatives from the Research Software Engineering World**
- Be more open to materials of different formats and from different authors
- **Update State of Training Survey**: identify blind-spots, start subgroups to work on them
- **Hybrid and in-person training events**
- **Report experiences** in Journals like JOSE
- **Participate** in conferences like CHEP
- **Attract new educators!!!**



- **Training on Analysis Pipelines**

- 26 Feb - 1 Mar
(<https://indico.cern.ch/event/1375507/>)
- Second event this year?
- We need to update videos
- We need to find mentors for last day

- **Software Carpentry Workshops**

- HSF/IRIS-HEP Software Basics Training (**May-July-October**)
- HSF/IRIS-HEP Python for Analysis Training (**May-July-October**)

- **ML + GPU**

- Already have material

- **Matplotlib for HEP**

- Already have material

- **Level Up your Python**

- Already have material

- **Julia**

- Already have material
- In-person training event

- **HEP C++ Course and Hands-on Training**

- Essentials course (**25-28 Mar**)
(<https://indico.cern.ch/event/1370681/>)
- Advanced course
- Special events



Current Training Center

Served us well, but becoming crowded

Basics

The UNIX Shell

A guide through the basics of the file systems and the shell.

Start learning now!

Contribute!

Version controlling with git

Track code changes, undo mistakes, collaborate. This module is a must.

Start learning now!

Contribute!

Programming with python

Get started with an incredibly popular programming language.

Start learning now!

Contribute!

SSH

Introduction to the Secure Shell (SSH)

Status: Early development

Start learning now!

Contribute!

Machine learning

Get behind the buzzword and teach machines to work for you intelligently!

Start learning now!

Watch the videos!

Contribute!

Matplotlib for HEP

Make science prettier with beautiful plots!

Status: Beta testing

Start learning now!

Contribute!

Software Development and Deployment

Version controlling with git

Track code changes, undo mistakes, collaborate. This module is a must.

Start learning now!

Contribute!

CI/CD (gitlab)

Continuous integration and deployment with gitlab.

Start learning now!

Watch the videos!

Contribute!

CI/CD (github)

Continuous integration and deployment with github actions.

Start learning now!

Watch the videos!

Contribute!

Docker

Introduction to the docker container image system.

Start learning now!

Watch the videos!

Contribute!

Singularity

Introduction to containerization with Singularity/Apptainer.

Status: Early development

Start learning now!

Contribute!

Unit testing

Unit testing in python.

Status: Beta testing

Start learning now!

Contribute!



The screenshot shows the HSF Training Center website interface. At the top, it says "HSF Training Center" and "Training and educational material for the High Energy Physics community." Below this is a navigation bar with "Curriculum" and "All Tutorials" tabs. A search bar is present with the text "Search Anything...". There are filters for "Beginner", "Advanced", "Stable", "Beta", and "Language". A "Videos" toggle is also visible. The main content area lists several training modules:

- ROOT**: The most famous data analysis framework used in HEP. Includes a GitHub link.
- UnROOT**: Open ROOT files in Julia! Includes a "Beta testing" badge and a GitHub link.
- uproot**: Reading and writing ROOT files without having to install ROOT. Includes a "Beta testing" badge and a GitHub link.
- A simple analysis**: A simple analysis using CMS open data. Includes GitHub and Videos links.

Find us

