

Brookhaven National Laboratory

**WELCOME!**

**AHEAD**

**HLS bootcamp**

**June 9-13, 2025**

**FPGAs are EVERYWHERE in  
ATLAS. In particular in the  
TDAQ system but also  
elsewhere in the detector**

**Great! But... programming FPGAs,  
as we will discuss, is not simple.**

**Traditional tools for FPGAs are  
used by electronics and firmware  
engineers with years of schooling  
and experience. Jahred used them  
years ago - HEP has learned over  
time not to let physicists do this**

**As we'll discuss, HLS tools are  
still complicated, but much  
simpler than more traditional  
tools. Great!**

**Unfortunately, not super great  
training resources out there**

If we love anything, it's bad  
music from the 80s and also  
ridiculous acronyms;  
**US AHEAD= US ATLAS HLS**  
**Education and Development**

Real, honest photo of your workshop organizers<sup>6</sup>



**This is a new workshop. With fresh material. Newly organized.**

**Who knows what the future holds, but we hope this workshop can and will happen again in the future, so please offer feedback and suggestions, even on the fly and as we go!**

**We'll send around a more formal post-mortem survey shortly after you get home, please look out for it!**

Some thoughts on this adventure we're about to embark on

**This is a new workshop. With fresh material. Newly organized.**

**Who knows what the future holds, but we hope this workshop can and will happen again in the future, so please offer feedback and suggestions, even on the fly and as we go! (Send us emails, talk to us in person, or via Mattermost)**

**We'll send around a more formal post-mortem survey shortly after you get home, please look out for it!**

# Code of conduct

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**US AHEAD is a community-based workshop and bootcamp with a focus on learning. There is no grading involved, but we expect all participants to put in their best faith effort to listen and work, which helps not only you but also your peers.**

**We hope to establish a welcoming and supportive environment for everyone, free from any form of discrimination, harassment, or retaliation, regardless of their background or identity. Disagreement and healthy discussion of differing viewpoints is welcome. We value a welcoming, considerate and respectful environment that encourages the open and free exchange of scientific ideas. We expect all US AHEAD participants to respect these guidelines during the workshop and its social events, and encourage participants to reach out to the organizers with any concerns that arise.**

**We expect each workshop participant to be welcoming, considerate and respectful of all other individual participants, regardless of their nationality, political views, gender, sexuality, religion, ethnicity or any other characteristics.**

**The organizers are committed to addressing any concerns in a timely and fair manner. In extreme cases, we reserve the right to ask individuals in violation of the code of conduct to leave the workshop.**

**Note that COVID-19 and the flu are not at very high levels right now, but if you are not feeling well, please do consider the impact of your behavior on others.**

**Share your most embarrassing coding moment.  
(It's OK, we're all friends here and what happens on Long Island stays on Long Island).**

**Also your favorite ice cream flavor and favorite dinosaur.**