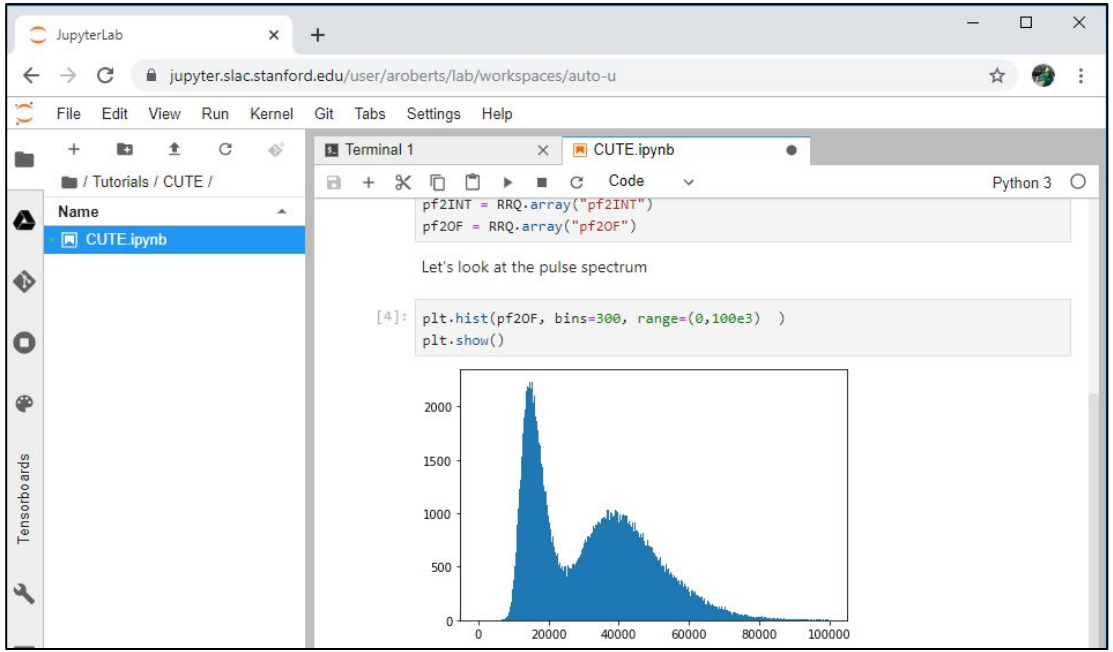
Understanding Dark Matter

Requires significant software infrastructure.
That can slow down research and restrict access.
The Cryogenic Dark Matter Search has used national computing resources to improve access - you might find these useful, too.

Better Software, Better Science

The science output of the dark matter community should never be limited by software, but it often is.
My collaboration has moved to a centrally-controlled, web-based analysis environment to improve our science efforts.



Our software is a nest of python, C++, and Fortran. New students took months and sometimes years to start analyzing.

- **Goal:** improve time-to-analysis for new collaboration members
- **Goal**: increase undergrad participation
- **Question**: how to **fund** analysis infrastructure?

We use free gateway support

Workshop participants,
Students in classes

SuperCDMS analysts

University of Colorado Denver
CU IN THE CITY

Jan Mandel leads the new campus cluster

SLAC NATIONAL ACCELERATOR LABORATORY

Tina manages allocation requests

Miriam manages allocation requests

Talk to Amy, Educational Allocations

What other support is possible?

- NSF Cybertraining
- XSEDE Campus Bridging
- Outreach and training support from research grants
- Other NSF/DOE calls?
- What else?

SGCI
Science Gateways Community Institute

0.25 FTE for one year; can write further support into grant applications

XSEDE
Extreme Science and Engineering Discovery Environment

Extended collaboration support services: 0.25 FTE until the end of the current allocation (October 2020)

Do you want gateway support? Who to contact

- UC Denver Campus Cluster
  - Jan Mandel
  - Recently approved through NSF CI*
- Any XSEDE resource (cloud services, developer support, computing resources)
  - Amy Roberts, the UC Denver XSEDE Campus Champion
  - Campus Champion for Anschutz campus may be coming soon!
- Science Gateways Community Institute
  - https://sciencegateways.org/
  - If you reach out they'll set up a meeting with you to discuss your particular use case