



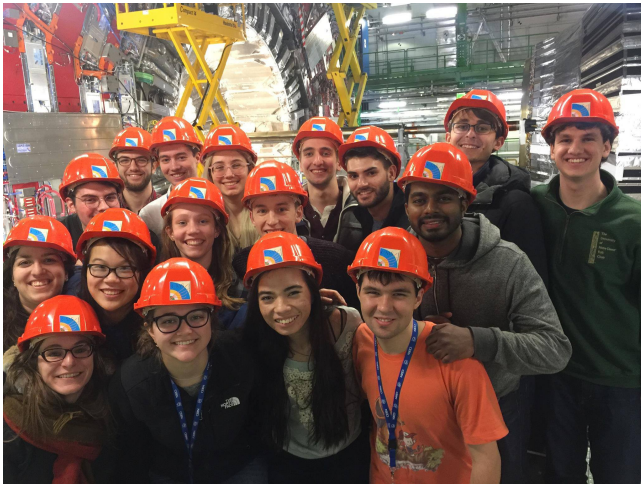
# HEP-Ex at BU

Kaitlin Salyer

# My BU Timeline



**Spring/Summer 2017: Participated in BU's Geneva program**



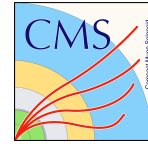
**2018: Graduated from Notre Dame, moved to BU**



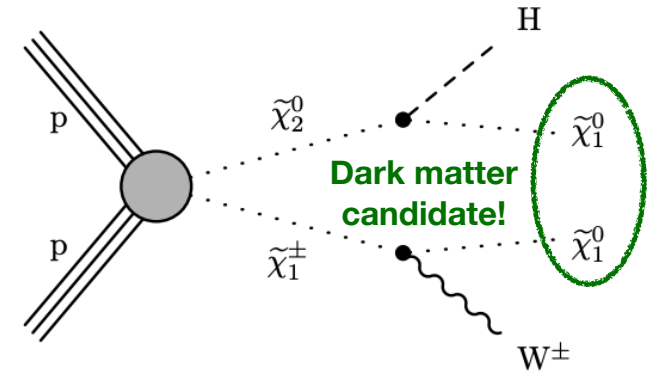
**2018-Present: travelled to CERN and FNAL to do research, published a paper, attended conferences, etc.**



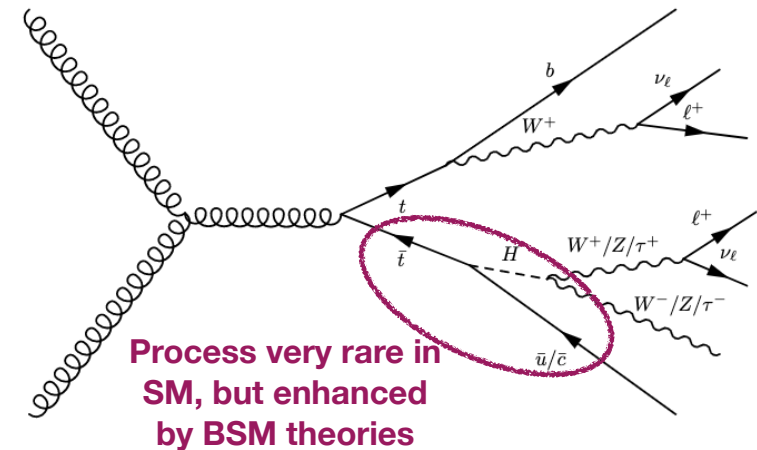
# Data Analysis Projects



- Supersymmetric search via **WH+MET** production
  - Published in July 2021 – at the end of my second year!
  - Invited to present at SUSY2021 conference in August 2021



- **Flavor-Changing Neutral Current search** in tqH channel
  - Done almost all the work for this myself!
  - Currently drafting, editing paper
  - 2nd publication in the next few months!



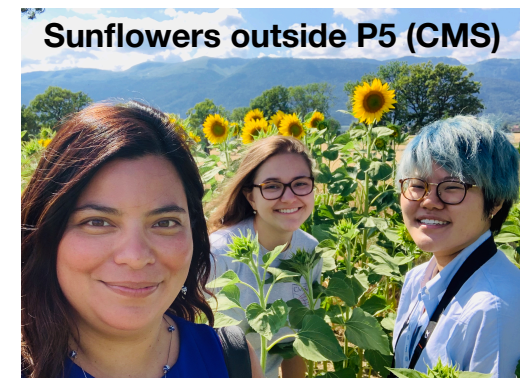
# Upgrade Projects



- **CSC upgrades for LHC Run3**
  - Travelled to CERN for summer 2019
  - Replaced electronics on CSC detectors
  - Tested chambers before reinstallation
    - Learned lots of troubleshooting methods!
- **AutoDQM** tool development
  - ML-based tool to more easily detect anomalies during data-taking
  - Using muon system histograms for development and validation of tool, but generalized enough to be centralized
  - Received an IRIS-HEP fellowship for this project



Retina scanner for entering CMS cavern



# Work Highlights



- **Collaboration**

- Get to work closely with talented physicists not only at BU but at other universities and labs
  - FNAL, UCSD, UCSB, UNL
- **Learn from others while making friends**

- **Enhance science communication**

- Via project updates, conferences, outreach and recruitment activities
- Range of projects, opportunities
  - Important to **develop hardware and analysis skills**
- Mentorship
  - **Lead and guide younger students** in projects, communicating, applications, etc.



# Boston as Home



- Boston has a ton of fun activities, restaurants, live events, etc.
- Research group outings
- Several different neighborhoods to explore!

