

# LArSoft Coordination Meeting

*Release and project report*

Erica Snider  
on behalf of  
the SciSoft team  
*Fermilab*

January 12, 2021

# Today's agenda and speakers

- Release and project report (Erica)
- Algorithms for ions and photons calculation (Muve)
- LArQL: a model for LAr ionization and scintillation (Laura Paulucci)
- AOB

# Releases

- Last week
  - v09\_10\_02 released Dec 11, 2020
    - Bug fixes
      - [lardataobj#10](#): remove unnecessary type-conversion operator
      - [larsim#57](#): fix MCShower ancestor start / end
  - v09\_11\_00 released Dec 17, 2020
    - [larg4#19](#): bug fix for [issue 25279](#)
      - Keep second to last point during sparsification
    - [larg4#18](#): use MCParticle method to keep transportation steps
    - [webevd#17](#): support detectors with Z/Y views rather than Z/U/V

# Releases

- Last week

- v08\_03\_00\_02a released Jan 5, 2021
  - MicroBooNE production release
- v09\_12\_00 released Jan 7, 2021
  - Linked PRs that disallow changing geometry at run boundaries
    - Addresses [issue 24323](#)
    - Includes [larcore#6](#), [larcoreobj#9](#), [larcorealg#12](#), [lardatalag#18](#), [lardata#12](#), [larevt#10](#), [larsim#56](#), [larreco#24](#), [larexamples#5](#), [lareventdisplay#10](#)
    - **Breaking change to Geometry service configuration**
    - See [larcore#6](#) and [larcore/Geometry/Geometry.h](#) for full details, links to all PRs

- This week

- Accepted PRs

# Status of PRs

- Approved for next release
  - [larrecodnn#13](#): New directory structure to separate TensorFlow, Keras, Trtis
    - See [issue 25218](#) for details
    - Migration script available in [larsoft#17](#)
      - Only argoneutcode affected. Feature branch is ready

# Status of PRs

- Approvals in progress
  - [larreco#25](#): TrajCluster produces tracks + 2D improvements
    - Previously produced only PFParticles with Assns to 3D-matched clusters.
    - Significant performance improvements in ProtoDUNE CR events and DUNE FD proton decay events
    - Author addressing suggested code improvements
  - [larsim#58](#): Add check for large SCE shifts that flag charges to drop
    - Related to handling of charge collected on electron diverters in ProtoDUNE-SP

# Status of PRs

- Under discussion
  - [larsim#54](#): Add photon fast simulation module based on GAN graph  
(opened Nov 19, 2020)
    - The requested larsimdnn repository was created. One remaining item to address
  - [larcorealq#13](#): Geometry can tell TPC closest to an optical detector  
(opened Nov 30, 2020)
    - Community questions arose as to exactly what questions needed to be answered
    - Meeting proposed. Awaiting response. (stalled?)

The end