* Clean and push code
  + Make PRs
* ~~Get Condor working~~
  + ~~Container (Patrick)~~
* <https://docs.google.com/document/d/1qa4vN5f8TOvmZg2-zqR6qE-b3GLWJHaSbMNUAMB9lYQ/edit>
  + ~~Job setup (Duc)~~
* On submit: /work/submit/dhoang/DQ/job\_sub/condor\_osg\_aprime
* **Redo A’ scans for efficiency and resolution after new weights & Particle ID** (Duc) )
  + ~~Mumu and ee efficiencies for:~~
    - ~~No DC emulation z200-600~~
      * ~~Generate DSTs and save them~~
    - ~~DC emulation turned on~~
* Duc asks Patrick to get an example.
* ~~A’ -> muons~~
* ~~A’ -> electrons~~
  + - ~~With data embedding~~
      * ~~Get the framework for data embedding.~~
* Randomly select the data file to choose from.
* Efficiency scan: use same embedding file.
  + ~~Look at mass resolution as a function of A’ decay position~~
    - ~~So run on both z500-600 and z200-600 files (for muons)~~
* DC emulation and no DC emulation.
* Overlay gaussians.
* Simple e/mu id scheme with fixed mass extraction for dimuons (Sebastian)
  + Need to change GetMomentumVertex in packages/reco/interface/SRecEvent.cxx. They’ve hardcoded mmu there. Make option to do m\_e. Figure out a scheme to determine when to use m\_mu vs m\_e
* Particle ID using just station 2+3 tracklets? (Dowling)
* Electron mass resolution using calorimeter information
* Thorough fakes studies (after vertexing revisited)
* Fake track rates
* Fake vertex rates
* Check Track to Calo extrapolation
* ~~Recheck pi0 samples~~
* Can we use station 2 bending from KMAG fringe field to get rough momentum estimate (just for fun later)
* Trimuon vetexing (Ridings)
* Use DPH information in vertexing? (probably not needed, but maybe)
* **Improve vertexing within FMAG** (Tentatively Noah or **maybe Duc**)
  + Cleaning up poorly reconstructed vertices (algorithmically online or offline?)!
  + Develop true/fake displaced vertex discrimination
* Using new pre-KMAG tracker?!?! (not implemented yet)
* Find J/psi with new tracking code (Sebastian later in summer, post PID)
* Develop detailed PID algo/scheme (kind of Sebastian)
  + Train PID NNs on signal+background events to account for multiple particles per event
* Investigate new pileup scheme from Kun (Noah)
  + <https://darkquest.slack.com/archives/C0175HU0M08/p1652891081646259>
* Yonatan g-2 project (Ridings)
  + Do some critical thinking here
  + <https://arxiv.org/abs/2112.08377>