

# Towards a New Storage Model for the LAT data

Our current model is to keep all current data on disk with a copy on tape. Reprocessings would require us to roll off the old data on the fly to make room for the new.

We had a meeting on Aug 4, with Eric Charles, Tom Glanzman, John Bartelt, Wilko Kroeger, Tony Johnson and Richard Dubois to discuss options.

Basic numbers:

- we store about 300 TB/yr on tape (recon, merit etc)
- Wilko thinks he can fetch 10's of TB/day from tape, perhaps 50.
- merit reprocessing goes at about 2 months/day, so about 50 TB/day
- full reprocessing could go at 15xL1 (with 2000 cores), so 15x0.6 or ~10 TB/day
- \$800/TB for disk, \$120/TB for tape

The current model was driven by the perception that fetching from tape was dead slow. This is no longer the case; now we can consider being tape based.

Issues:

- tape reliability: write 2 copies
- access to recent files
  - keep 2 months of L1 in a rotating buffer - 50 TB or so
- need buffer for reprocessing
  - 10 days worth? 500 TB?
- some disk for MC - 50 TB/yr?

We need to order more disk and tape now, so we will stick with the current model. The next order should be in about 6 months; we agreed that would be a deadline for testing this new model. Now we need a plan and schedule for that testing.