

Joining LSST main catalogs with other catalogs (cross match)

AGN science collaboration expects to join LSST Catalogs with: *chandra*, *xmm-newton*, *spitzer*, and other space-observatory source catalogs. These catalogs are expected to be (O)1GB in size, and the joins are expected to be needed about 1 time per month.

Weak lensing: "we will probably not do MUCH joining with other catalogs, by which I mean that we expect that most of the galaxies we observe will never have been observed before. We still may want to join with millions from SDSS or CFHTLS to examine any systematic differences among the common galaxies."

Supernova: "Yes. IR catalogs from efforts like VISTA (tens of TBs?). Existing X-ray catalog from current and potential future missions. This will possibly be nightly, but again only for a subset of the objects that resemble supernova."

Large Scale Structures: "Cross-correlations between different observations in different wavelengths are an important aspect of lss studies, so catalogs of non-optical surveys in the same part of the sky (e.g., many satellite missions and some spectroscopic surveys) are useful. SDSS' image data are 10 TB, and its catalog database is only 4 TB. Since SDSS probably has the largest astronomical dataset so far (though in the northern hemisphere), it may be easy to host other datasets on LSST servers for better performance. Anti-cross matches can be used to find extreme objects (such as very high redshift galaxies), but they are not the main part of the lss studies."