

Gaia

# Introduction

This document contains the search results for “Gaia” in the LSST Community Forum (<https://community.lsst.org/>). They are presented in reverse chronological order.

Date of last search: 29 December 2024

## 2024

### 2024Q4

#### [Astrometry Uncertainty estimates Support](#)

8d - ...y describes the process that was used to develop these values. Is there another document that takes this table down to magnitude 17? As a comparison, GAIA shows a 20 fold improvement in astrometric uncertainty from mag 21 to mag 17.

#### [Effect of 30 second exposures on LSST science Science](#)

Nov 26 - ...cument and the “snaps” simulation files. Our work with exoplanets falls into one of those areas that will need reinforcement from other missions like GAIA. I know that the saturation boundary for LSST (circa mag 17) and the observability boundary for GAIA (mag 20.6) define a region where there is overla...

#### [User table upload to qserv Support](#)

Oct 22 - ...I want to join a table I upload of catalogue objects to a native table on the platform. In this particular instance using a SQL JOIN clause as I have Gaia ids that are in one of the tables. I can imagine other use cases where an ADQL nearest neighbour match would be useful. Thanks Andy

#### [Missing Fields in DP0 catalogue Support Data Preview 0](#)

Oct 10 - Since we will not have operational LSST astrometry data for quite some time, I am considering using GAIA data as stand-ins for LSST during early development and testing. The GAIA data seems to map fairly well to what is expected in diaObject. Not exactly...

#### [LINCC Tech Talk on October 10 @ 5pm UTC: Enabling Massive Correlation Functions in the LSST Era Science](#)

## [Announcements](#)

Oct 7 - ...cuss the algorithms, technologies, and code packages developed, and demonstrate their application in studying the projected cross-correlation between Gaia quasar candidates and a vast galaxy sample extracted from Subaru HSC-SSP, showcasing the potential for LSST-era cosmology research. LINCC Tech Talks...

## 2024Q3

[Interested in leading a short discussion on “LSST Beyond Gaia” at the Sept 17th SMWLV wide meeting?](#)

[Science](#)

[Milky Way](#)

Sep 12 - Thanks everyone! Aaron Meisner and Steven Gough Kelly will each be leading short (~20 min) discussions on metal poor ultracool dwarfs and galactic dynamics with insights from large-amplitude variable stars, respectively. See you there!

[LINCC Tech Talk on September 12 @ 5pm UTC: A Systematic Search for Main-Sequence Dipper Stars using the Zwicky Transient Facility](#)

[Science](#)

[Announcements](#)

Sep 6 - ...results of a large systematic search for main-sequence dipper stars, conducted across a sample of 60 million FGK main-sequence stars using data from Gaia DR3 and the Zwicky Transient Facility (ZTF). Our work introduces a novel light curve scoring algorithm identifying dipper stars, including a scalable...

[DP03\\_06\\_User\\_Uploaded\\_Tables](#)

[Support](#)

Aug 6 - Glad to hear! Note that you shouldn't expect to get matches between real objects in the sky (i.e., from Gaia) and DC2/DP0 sources. DC2 is simulated, so does not correspond to the actual stars in the sky.

[Noirlab Data Lab access in Jupyter Notebooks](#)

[Support](#)

Aug 2 - ...or these excellent suggestions. The news about the operational environment is great. From my early explorations, I am using the dl code to access the GAIA data. I'll take a look to see what the TAP service can provide. TAP sounds like the better long term solution, especially when the GAIA data is avail...

[Mapping Gaia magnitudes to LSST bands](#)

[Support](#)

Aug 1 - Hi, as far as GaiaXPy is concerned ( <https://gaia-dpci.github.io/GaiaXPy-website/> ) there is also this more intuitive web tool based on it: <http://gaiaportal.asdc.asi.i...>

[Quantifying the Structure & Dynamics of the LMC's Bar Using Resolved Stellar Populations](#)

[Archive](#)

[RCW 2024](#)

[rrb](#)

Jul 20 - ...structural analysis of the bar of the Large Magellanic Cloud (LMC), the Milky Way's largest satellite galaxy, using resolved stellar populations from Gaia DR3. To address incompleteness caused by severe stellar crowding in the LMC's center, we developed an innovative method utilizing the Gaia BP-RP colo...

## 2024Q2

[Milky Way astrometry in DPO](#)

[Support](#)

[Data Preview 0](#)

Jun 24 - ...'m an observer focusing on Milky Way star clusters, and I also have a <https://github.com/emilyhunt/ocelot> Python package originally made to work with Gaia data that I'd like to update to work with LSST+other survey data too. I think that DPO would be a really good opportunity for us to work out what kin...

[Interpreting Color-Color Diagrams for Presumed Variable Stars](#)

[Science](#)

[variables](#)

Jun 4 - Hi @mochaait , We recently analyzed RR Lyrae stars in Milky Way globular clusters using Gaia data and specified the empirical location (and purity) of the instability strip for RR Lyrae. You can find the paper here: <https://ui.adsabs.harvard....>

[2024-05-30 SMWLV telecon Agenda\\_livenotes](#)

[Science Collaborations](#)

[Stars, Milky Way, and Local Volume](#)

[SClivenotes](#)

Jun 3 - ...into a private Zooniverse application for KD's cohort of community college students to process. Use ML training sets, for example, optical photometry+Gaia parallaxes Consider outliers from the hydrogen burning stellar locus. With parallax information, look for outliers in CMD Consider application to con...

[Sherlock distances for stars?](#)

[Support](#)

[Lasair](#)

Apr 5 - Unfortunately, the Gaia distances are not reported in Sherlock.

## 2024Q1

[Force processCCD for detectors not covered by reference catalogs](#)

[Support](#)

[Pipetask](#)

[drp](#)

Feb 6 - ...ing into an issue on the first step of the DRP. I have a handful of exposures whose visits are only partially-covered by the photom (ps1) and astrom (gaia) reference catalogs that I currently have downloaded. From what I can tell, when I am trying to run DRP#step1 , the qgraph prevents pipetask (or bps)...

## 2023

### 2023Q4

[ADQL question: Selecting a random subset of objects in DP0](#)

[SupportData Preview 0dp0adql-tap-qserv](#)

Oct '23 - ...m subsample of galaxies from DP0.2. RAND() from standard SQL doesn't work, and I am having a surprisingly hard time finding how to do this in Google. Gaia tables have a random\_idx column, but I haven't found something like that in DP0.2. Thanks!

### 2023Q3

[How to do FGCM task in v24.0.0?](#)

[Support](#)

Sep '23 - ...t to convert old PS1 catalog which is not supported anymore to newer one. Second, in my experience of running pipetask in the v25.0.0 it required the Gaia DR3 catalog I guess. But what I own is only DR2.

[DM Monthly Status Report for July 2023](#)

[Data Management](#)

Aug '23 - ...25\_0\_0.html#release-latest v25.0.0 of the LSST Science Pipelines was released. The Global astrometric solution in the DRP pipeline is now tied to the Gaia DR3. Because DR3 has more complete spatial coverage than DR2, this yields a better absolute astrometric solution. Batch Production Service (BPS) now...

[Error in single frame processing of HSC data](#)

[Support](#)

[butler](#)

Aug '23 - ...l 2019. I don't know if we still have a public place to download them from (131k files, 400GB), but we probably should (for these and our htm-sharded Gaia DR2/DR3 files as well). We used to host a download link for PS1 on NCSA. To run the convert script, you'll have to use an older science pipelines rel...

### 2023Q2

[Setting epoch in Jointcal](#)

[Support](#)

Jun '23 - ...I were to stack a new image and an old archive image from a few years back that both overlap the same sky tract, what happens? If we do jointcal with gaia coords shifted in epoch to each image, they are essentially shifted offset by a few years. Do these then just get stacked/swarped as is? Our image wa...

[RSP update: Recommended Image change - 2023-06-01](#)

[Support](#)

[Rubin Science Platform](#)

Jun '23 - ...by an astropy.units.Unit does not give a Series of Quantity as it used to with Pandas 1.5.2. We changed to the equivalent of: coord = SkyCoord(ra=df\_Gaia\_MontWD['RA\_ICRS'].values \* u.degree, dec=df\_Gaia\_MontWD['DE\_ICRS'].values \* u.degree, frame='icrs') but your solution seems fine too.

## 2023Q1

[Cross-matching SDSS and Gaia Data](#)

[Support](#)

[Data Preview 0](#)

Mar '23 - ...\_u, p.probpsf\_g, p.probpsf\_r, p.probpsf\_i, p.probpsf\_z, p.lnstar\_u, p.lnstar\_g, p.lnstar\_r, p.lnstar\_i, p.lnstar\_z FROM sdss\_dr17.x1p5\_\_specobj\_\_gaia\_dr3\_\_gaia\_source as j JOIN sdss\_dr17.specobj as s ON j.id1 = s.specobjid JOIN gaia\_dr3.gaia\_source as g ON j.id2 = g.source\_id JOIN sdss\_dr17.photopl...

## 2022

### 2022Q4

[Kickstarter Science Colloquium](#)

[Science](#)

Nov '22 - ...j/85225969518 Abstract What proportion of the stellar population in the bulge of the Milky Way has been stripped from globular clusters? We are using Gaia astrometry and the Blanco DECam Bulge Survey (BDBS) catalog — a precursor survey to LSST — to search for candidate extra-tidal stars around 20 inner...

[Gaia DR2 reference catalog in LSST format](#)

[Data Management](#)

[Astrometry](#)

[Calibration](#)

[refcat](#)

Nov '22 - This looks to me like regular spherical geometry: the files with large RA ranges are all polar ( |dec| ~ 90 ). I recommend you plot the points (with a suitable projection!) and verify for yourself that the points for each file are compact on the sky.

[Light curves of stars and photometric calibration](#)

[Support](#)

[Calibration](#)

[imagedifference](#)

Oct '22 - Ok, so I got it mixed up, sorry. I do use Panstarss for the photometric calibration, Gaia is used for the astrometry calibration (this is the default configuration). Here are the plots with the panstarss magnitudes: It's more consistent :s...

## 2022Q3

[Algorithmic question about image registration during differencing](#)

[Support](#)

Sep '22 - ...age directly to the astrometry of the reference/template image, as opposed to calibrating both images independently to some external data set like Gaia. I believe that e.g., SWarp from the Astromatic toolset is capable of performing this type of astrometric recalibration directly against the referenc...

[Do Write Heavy Footprints In Sources appears not to have any effect](#)

[Support](#)

Aug '22 - ....meas.algorithms/creating-a-reference-catalog.html instructions for converting external catalogs to our refcat format . See this Community post for a Gaia DR2 refcat (though that doesn't help with photometry).

[PhotCal outside of the PS footprint](#)

[Support](#)

[photometry](#)

Aug '22 - ...~19). It's available at NCSA in /datasets/refcats/htm/v1 . I don't know where the similar path at the new USDF is. You certainly could try to use the gaia phot\_g\_mean band for very crude photometry, but you might be better off trying the phot\_bp\_mean\_flux and phot\_rp\_mean\_flux fields instead. Use https:...

[Using gaia\\_dr2\\_20200414 in jointcal?](#)

[Support](#)

[jointcal](#)

Jul '22 - I think I figured this out. It turns out, I was missing one of the files in the gaia\_dr2\_2020414 folder (the master\_schema file) and that was causing jointcal to fail reading in the ref\_cat. I did not realise all the files were requir...

[Problems while trying to create a new LSST obs packag](#)

[Support](#)

[butler](#)

Jul '22 - ...d the topic Error while trying to create master bias frames seems not work for me. And I meet this error when I want to process HSC 's data using the Gaia catalog, and seems

need to modify some setting related to filter if want to use Gaia catalog .  
ctrl.mplexec.singleQuantumExecutor ERROR: Execution of...

## 2022Q2

### [Accessing External TAP Services from an RSP Jupyter Notebook](#)

[Support](#)

[Data Preview 0](#)

May '22 - ...TAP services, once can use the following: `import pyvo tap = pyvo.dal.TAPService('https://datalab.noirlab.edu/tap') tap.run_sync('select count(*) from gaia_edr3.gaia_source') < Table length=1 > COUNT int32 ----- 1811709771` We confirmed that Robert's solution still works at today's meeting. Now, how...

### [A few issues with jointcal](#)

[Support](#)

[Jointcal](#)

[drp](#)

May '22 - ...rete\_decaps\_east', physical\_filter: 'r DECam SDSS c0002 6415.0 1480.0', tract: 0, ...})(loadReferenceObjects.py:904) - Loading reference objects from gaia\_dr2\_20200414 in region bounded by [269.18883014, 272.59111395], [-31.00847184, -28.04821100] RA Dec INFO 2022-04-30T01:23:16.169-07:00 lsst.jointcal...

### [Bus error when running pipelines](#)

[Support](#)

[Science-pipelines](#)

[Ap\\_pipe](#)

[pipetask](#)

Apr '22 - ...Cal.photoCatName='ps1\_pv3\_3pi\_20170110' -c  
calibrate:photoRefObjLoader.ref\_dataset\_name='ps1\_pv3\_3pi\_20170110' -c  
calibrate:connections.astromRefCat='gaia\_dr2\_20200414' -c  
calibrate:astromRefObjLoader.ref\_dataset\_name='gaia\_dr2\_20200414' -c  
calibrate:astromRefObjLoader.anyFilterMapsToThis='phot\_g\_mean'...

### [About HSC data process](#)

[Data Management](#)

[butler](#)

Apr '22 - ...F detector (lsst-scipipe-3.0.0) [yyb@raku repo]\$ butler query-dataset-types \$REPO  
name ----- Bias bfKernel camera crosstalk defects gaia\_dr2\_20200414 linearizer  
ps1\_pv3\_3pi\_20170110 raw skyMap transmission\_atmosphere transmission\_filter  
transmission\_optics transmission\_sensor Now I need...

### [Pan-STARRS reference catalog in LSST format](#)

[Data Management](#)

[DM Notifications](#)

[Refcat](#)

[panstarrs](#)

Apr '22 - ...onger since I was involved with Pan-STARRS. And the cluster serving the data is down right now so I can't look at that example. My guess is that it's Gaia, which was used to seed the catalog and has somehow slipped through, but I don't know if that's right or even makes sense.

## 2022Q1

[Data Management Science Pipelines Design Document](#)

[Data Management](#)

Mar '22 - I think it is fair to say that we have certainly shifted towards relying more on FGCM. Using Gaia to tie together FGCM runs that cover large areas - but not the full survey - is perhaps still in the picture, but I think it's much more likely for D...

## 2021

### 2021Q4

[Qserv - not finding objects via director\\_key](#)

[Support](#)

[qserv](#)

Nov '21 - ...e regarding your questions on partitioning the input data for Qserv. Your first question in this context was: Originally the director\_key was set to "gaia\_source\_ID" but I tried changing it to objectId in case the underscores affected things. The director\_key is not the first column in the tsv files, do...

[SQL/ADQL Beginner Resources](#)

[Support](#)

[Data Preview 0](#)

Nov '21 - ...trasbg.fr/adql/help.html VizieR and <https://simbad.u-strasbg.fr/simbad/tap/help/adqlHelp.html> Simbad databases at CDS. <https://www.cosmos.esa.int/web/gaia-users/archive/writing-queries> ADQL example queries for the Gaia Data Release . The DP0.1 documentation includes a few basic ADQL tutorials for the DP...

[Qserv questions](#)

[Support](#)

Nov '21 - ...arallel to ingest we will extract a skinny set of attributes from the Object table. This skinny table will be cross-matched with another dataset (say Gaia), the result will be another skinny catalog/table of the LSST ID and the Gaia ID and a few attributes. We want to ingest this table back into qserv,...

## 2021Q3

### [Set up RefMatchTask for reference catalog crossmatch](#)

#### [Support](#)

Sep '21 - ...astromRefCat: ps1\_pv3\_3pi\_20170110 set but I don't get as many matches back as I thought in the srcMatch dataset. (51 matches from PS-1 and 46 from Gaia.) Perhaps this makes sense if astrometric calibration only uses a subset of stars for WCS correction and not doing a full catalog crossmatch?

### [Issues with ingestCalib.py using DECam images](#)

#### [Support](#)

#### [Decam](#)

#### [ingestion](#)

Aug '21 - ...gen3 refcat is to ingest it into a gen2 repo and then convert it to gen3 ( <https://jira.lsstcorp.org/browse/DM-29543> ). There is an example that uses Gaia DR2 <https://pipelines.lsst.io/modules/lsst.meas.algorithms/creating-a-reference-catalog.html> but I would like to use Pan-STARRS to construct the refe...

### [How can I query external TAP services?](#)

#### [Support](#)

#### [Data Preview 0](#)

Jul '21 - ...er the hood. So, this works for instance: `import pyvo tap = pyvo.dal.TAPService('https://datalab.noirlab.edu/tap') tap.run_sync('select count(*) from gaia_edr3.gaia_source') < Table length=1 > COUNT int32 ----- 1811709771 Thank you.`

## 2021Q2

### [Questions about jointcal photometry patterns](#)

#### [Support](#)

#### [Decam](#)

#### [Photometry](#)

#### [jointcal](#)

May '21 - ...ss some DECam data from raw, and compare the photometry (PSF mag) with DES. We use SkyMapper or PS1 (stars) as the photometric reference catalog, and Gaia as the astrometric reference catalog. The difference between the photometry of calexp\_photocalib src from processCcd and DES looks random (Figure 1),...

### [DECam Gen 3 VR band: RuntimeError: No reference tables could be found for input region](#)

#### [Support](#)

May '21 - ...-i

DECam/raw/all,DECam/calib,DECam/calib/cert-biases,DECam/calib/cert-flats,tmp/isr-prep -o tmp/calibrate\_2 -p yamls/calibrate.yaml . cal\_ref\_cat is Gaia DR2. I have also tried using

pan-starrs and Gaia DR1 with the same error. The error is Process task-8: Traceback (most recent call last): File "/epyc...

### [DECam Gen 3: Empty QuantumGraph for CharacterizeImageTask](#)

[Support](#)

[Decam](#)

[obs\\_decam](#)

May '21 - ...isr/20210430T195740Z 6560 r DECam 2 r DECam SDSS c0002 6415.0 1480.0 989582 ... And the input collection refcats/gen2 contains gen2 to gen3 converted Gaia DR1 and Pan-STARRS1 reference catalogs: \$ butler query-datasets repo/ --collections refcats/gen2 gaia\_DR1\_v1 | head -5 type run id htm8 ----- -...

## 2021Q1

### [Question about FLUXMAG0 header value in older versions](#)

[Support](#)

Feb '21 - ...for instcals, and I don't know of anyone with specific expertise in that side of things, so it'll probably be hard to get anything more. smotherh: Is Gaia DR2 available on the UW Epyc system in LSST refcats format? I'd ask on the DIRAC slack about that: I think it is, but I don't know where.

### [Which flux measurement should be used for the photometric reference catalogue](#)

[Data Management](#)

[dm-dev](#)

Feb '21 - ...30 deg, and LSST will survey much further south. I expect that they will generate a reference catalog directly from LSST observations, probably using Gaia as an anchor (or, at least as a constraint), although I wouldn't be surprised to learn that @CStubbs and @rhl have plans to calibrate everything dire...

## 2020

### 2020Q4

### [Bright Star Saturation](#)

[Support](#)

[Data Products](#)

Dec '20 - ...MAF, but I think they all start around 15th mag. If you want to make something on the brighter end we can probably do that (I imagine we could bin up gaia DR3 or something). For the saturation limits, that seems like the kind of thing that one could calculate from the syseng\_throughputs repo. This noteb...

### [Help with NaN in jointcal fitting of DECam data \(with obs\\_decam?\)](#)

## [Data Management](#)

### [jointcal](#)

Nov '20 - ...hose dates run through jointcal fine. it doesn't appear to be related to the reference catalog—we tried both PS1 and SDSS (in addition to our default GAIA astrometry catalog) and got the same result. Furthermore, if we omit those specific dates, jointcal runs fine. It's not related to a specific point o...

## 2020Q3

### [DM Monthly Status Report for August 2020](#)

#### [Data Management](#)

#### [DM Notifications](#)

Sep '20 - ...possible in the Generation 3 framework. Several key refinements were made to DM's data access and database systems during August. First, the WISE and Gaia Data Release 2 datasets were ingested and made available in a new Qserv deployment at NCSA. Secondly, the prototype Alert Production pipeline was upg...

### [Jointcal using DECam data](#)

#### [Support](#)

#### [Decam](#)

#### [jointcal](#)

Aug '20 - I am running jointcal on a set of DECam images processed by the community pipeline in the VR filter using gaia dr2 for my reference catalog. I am testing on a single tract to see how the performance improves when using jointcal. The observing strategy is to ta...

## 2020Q2

### [DM Monthly Status Report for March 2020](#)

#### [Data Management](#)

#### [DM Notifications](#)

Apr '20 - ...n. The database team continued to exercise and refine the parallelized data ingest system for the Qserv distributed database. <https://sci.esa.int/web/gaia/> Gaia Data Release 2 was re-partitioned and re-ingested at the Data Facility in its entirety (including both source and secondary tables). Testing of...

## 2019

## 2019Q4

### [DM Monthly Status Report for November 2019](#)

#### [Data Management](#)

#### [DM Notifications](#)

Dec '19 - ...e implementation of the low-level distributed data-loader service for Qserv was completed, deployed at the Data Facility, and tested by ingesting the Gaia Data Release 2 and Hyper Suprime-Cam Release Candidate 2 catalogs. Efforts are ongoing between the System Science Team and the Science Pipelines grou...

[CFHT Megacam data Support](#)  
[Cfht megacam](#)

Dec '19 - ...v19 of the pipeline setup and successfully tested. A bit more info - I have images in raw format, as well as already detrended and calibrated against GAIA with Stephen Gwyn's megapipe system (good per-chip photometric calibration, and astrometric calibration using the PV formalism). Can start with raw d...

[DM Monthly Status Report for October Data Management](#)  
[DM Notifications](#)

Nov '19 - ...34.Isst.io SQR-034 : Engineering & Facility Database (EFD) Operations Model (proposal) The DM team produced an astrometric reference catalog based on Gaia Data Release 2. This is a closer match to the system we expect to deploy in the operational era than the catalogs that have been available to date. W...

## 2019Q3

[Open questions after generating Gaia DR2 refcat](#)  
[Data Management Catalogs refcat](#)

Aug '19 - Ok, so maybe it wasn't accurate to say that the format hasn't stabilized. But my larger point that the on-disk files that we have right now are unstable still holds, because we haven't stabilized the mapping from upstream catalogs to our format. parejkoj: Letting the refcat schema change over tim...

## 2019Q2

[PhotoCalib has replaced Calib: welcoming our nanojansky overlords](#)  
[Data Management Photometry Calibration units](#)

Apr '19 - parejkoj: In the next few weeks, we will provide converted versions of the existing gaia, ps1, and sdss catalogs on Isst-dev. Watch for an announcement. The converted refcats are available on Isst machines at /datasets/refcats/htm/v1/ Ple...

[Questions about background subtraction and reference catalog](#)

[Data Management](#)

Apr '19 - ...re not background-subtracted? Is the “background subtraction” used for the output catalog or for the generated calexp images? For reference catalogs (Gaia, PS1, SDSS), which calibrate astrometry and photometry, they are used in processCcd , jointcal , measureCoaddSources . In processCcd , it is given by...

## 2018

### 2018Q4

[DM Monthly Status Report for September 2018](#)

[Data Management](#)

[DM Notifications](#)

[dm-highlights](#)

Oct '18 - ...notebook service to provide users with the capability to run computations over large data volumes: the prototype was tested with the 1.7 billion row Gaia DR2 catalog. The Alert Production pipeline was enhanced with the ability to perform forced photometry on processed visit images, while the Data Relea...

### 2018Q3

[Let's coordinate observing cadence white papers](#)

[Science](#)

[Survey Strategy](#)

Aug '18 - ...table . Here are the TVS planned submissions Lead Authors Collaboration Title Kind Notes Gisella Clementini - Ilaria Musella @ilaria.musella TVS The Gaia-LSST Synergy and Constraining Theory using LSST observations MiniSurvey Cadence should be optimised to allow the coverage of both short period ( $P < 1...$

### 2018Q1

[Notes from March 2018 SMWLV telecon](#)

[Science](#)

[Milky Way](#)

Mar '18 - ...unding proposal to develop user tools, particularly involving variable stars, is being submitted: It includes Naylor, Lucas. Astrometry: The upcoming Gaia DR2 dataset is crucial. Monet has plans once this is available. As we discussed, a science collaboration chairs briefing on astrometry was held later...

[LSST PST DM Astrometric pipeline and data product - Jim Bosch \(LSST DM\)](#)

[Archive](#)

[PST Telecons](#)

## [astrometry](#)

Mar '18 - ...anging info (e.g. humidity) will likely not matter enough to need to be included  
Forward modeling WCS from the stars' position and galaxies' position Gaia catalog will improve this modeling dramatically, though coordinates will have to be constrained between Gaia stars since LSST will go deeper than Gai...

## [LSST PST DM Photometric pipeline and data product - Robert Lupton \(LSST DM\)](#)

### [Archive](#)

### [PST Telecons](#)

Mar '18 - ...jects, e.g. yes on comets, no on galaxies. DM reserves the right to not to use an extremely expensive profiles on all objects. Relative vs Absolute : Gaia (also SDSS PSF) provides absolute photometry across the sky for calibration (photometric 0-point) Galaxy photometry : Fluxes measured with a bayesian...

# 2017

## 2017Q4

### [Outcome of Nov. 2017 SMWLV call](#)

#### [Science](#)

#### [Milky Way](#)

#### [Astrometry](#)

#### [Milkyway](#)

#### [Smwlv](#)

#### [gaia](#)

Nov '17 - The slides from my presentation are posted at: <https://zenodo.org/record/1044050> .

## 2017Q3

### [Milky Way and Microlensing Science Breakout Session](#)

#### [Archive](#)

#### [LSST2017](#)

#### [Tvs](#)

#### [Milkyway](#)

#### [lsst2017](#)

Aug '17 - Glad this session got a slot at LSST2017. The Gaia data release schedule has been firmed up recently - see <https://www.cosmos.esa.int/web/gaia/release> with Gaia DR2 (Apr 2018), Gaia DR3 (mid to late 2...

### [Some results on jointcal running on HSC data](#)

#### [Data Management](#)

Aug '17 - ...t even clear that the relative weight of measurements and references in the least squares minimization is roughly correct, at least for panStarss and Gaia. The original PanStars catalog indeed delivers position uncertainties (however without the xy cross term, I think, but we can imagine that they are r...

## 2017Q2

[Special Session Ideas](#)

[Archive](#)

[LSST2017](#)

Jan '17 - LSST-Gaia Connection: Dana Casetti and Dave Monet ( @dgmonet ) recently reminded me of the importance of the LSST-Gaia interface (astrometry, photometry). We w...

## 2017Q1

[Some numbers and plots on the astrometry](#)

[Data Management](#)

[astrometry](#)

Jan '17 - That's great. The Gaia accuracy where they give up at c. 20th is around 0.5mas, so we're already only a factor of ten worse and things can only improve. Proper motion is go...

[Report on ESO calibration meeting](#)

[Data Management](#)

[conference-report](#)

Jan '17 - ...Susana Deustua: Photometric calibration of WFC3 on HST ... 3.1 Synthetic Photometry ... 3.2 Evolution of filters ... 3.3 Error budget 4 Giuseppe Altavilla: GAIA spectro-photometric standard grid for absolute calibration ... 4.1 "SPSS" Standards 5 C. Jordi: The Gaia astrometric space mission and its deliveries 6...

## 2016

### 2016Q4

[Rerunning individual tasks from processCcd](#)

[Data Management](#)

Nov '16 - Using the Gaia catalog is improving a lot the astrometry determination. The problem is that at the moment it is not possible to use a different catalog for astromet...

[Vaex visualization tool](#)

[Data Management](#)

Nov '16 - ...ice, worth to try. I also have set up an example using datashader here <https://github.com/lstt-sqre/bokeh-plots> which could be easily adapted to load Gaia catalog.

[Implementing RFC 95 / Populating /datasets](#)

[Data Management](#)

[Doc-engineering](#)

[Verification](#)

[Dataset](#)

[dm-infrastructure](#)

Oct '16 - ...ders? Something like this: /datasets/refcats/astrometry\_net\_data/ (sources: /lsst7/astrometry\_net\_data/ ) owner: @price /datasets/refcats/cal\_ref\_cat/gaia\_DR1\_v1/ (source: /gpfs/fs0/home/ctslater/gaia\_refcat ) owner: @ctslater Do I recall correctly that there are plans to make those 2MASS and SDSS astro...

[Fixing Astrometry Matching](#)

[Data Management](#)

[Astrometry](#)

[algorithms](#)

Oct '16 - ctslater: Also just to be sure, I suspect @boutigny is matching against Gaia? If not, I would be interested in knowing if that changes the result. I haven't been able to find the time to test with the new Gaia catalog. I will...

## 2016Q3

[Reference catalog notes](#)

[Data Management](#)

[Astrometry](#)

[Photometry](#)

[catalogs](#)

Sep '16 - ...lable from STScI... The public release of DR2 is scheduled for May 12, 2017. We expect other releases with the Medium Deep data, difference image data, Gaia astrometry, and photo-zs from the Photo-Classification Server on a schedule to be released later.

[Baseline Plan for Blended Fitting](#)

[Data Management](#)

[Algorithms](#)

[planning](#)

Aug '16 - ...rs, but then again I am pretty unplugged these days. Many years ago, DI was promised as the panacea for crowded fields. A huge worry that I have with Gaia is how well it performs in crowded fields. With two fields of view on the focal plane at the same time, it sounds like yet more of a mess than just o...

## 2016Q2

[Verification Datasets Meeting 2016-06-01 Minutes](#)

[Data Management](#)

## [Verification dataset](#)

Jun '16 - ...n/solution (UW) calibration (Princeton), more absolute calibration solving small-scale problem now with jointcal, not sure about global one, will use Gaia to inform Peter Yoachim worked on photometric problem and found that we can do it, need edges to meet, can get it to the level that we need Zeljko an...

## 2016Q1

Listing of available Sims Technotes

### [Archive Simulations technote](#)

Mar '16 - ...So, You Want to Write a Scheduler for SOCS by Michael Reuter  
<https://github.com/lstt-sims/smtm-007> [Github] <https://smtm-008.lstt.io> SMTN-008: Using Gaia for photometric calibration by Peter Yoachim <https://github.com/lstt-sims/smtm-008> [Github]  
<https://smtm-009.lstt.io> SMTN-009: Minimoons and LSST (MA...

### [Notes from DRP High-Level Data Flow Discussion Data Management planning](#)

Mar '16 - ...ping a region of sky (area of a handful of focal planes?) Lets us constrain spatial variations on smaller scale than reference catalog allows. Expect Gaia to constrain larger scales. First opportunity to estimate colors for objects; if we don't use a PSF star catalog from a previous DR, this is our first...

### [Requirements for overhauled calibration task? Data Management dm-dev](#)

Jan '16 - We'll certainly use Gaia stars, but I think we'll probably want to go fainter.

## 2015

### 2015Q4

#### [Single-frame processing sketch Data Management](#)

Nov '15 - ...letely ruled out. Solves for final astrometric solution (including small-scale atmospheric variations we can't constrain from lab data or matching to Gaia) Solves for final photometric solution, including correction from raw DN (assuming sky SED we used for flat-fielding) to more reasonable nominal SEDs...