

# EROSII@CDS: Ascii-file status

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# Outline

- The ascii infrastructure
- Output files
- Variable stars

# Infrastructure (erosprod/CDS/README.txt)

```
/pbs/home/e/erosprod/CDS> ls -l *.py
-rwxr-xr-x 1 erosprod eros  3093 May 18 22:32 getallsuivis.py
-rwxr-xr-x 1 erosprod eros  3104 Jun 16 03:09 getsuivilc.py
-rwxr-xr-x 1 erosprod eros 10269 Jul  8 06:08 makeimagelist.py
-rwxr-xr-x 1 erosprod eros 10377 Apr 18 17:43 makeimagelist_lm014.py
-rwxr-xr-x 1 erosprod eros 15592 Jun  8 11:50 makexcat.py
-rwxr-xr-x 1 erosprod eros 12181 Jun  9 08:55 makextime.py
-rwxr-xr-x 1 erosprod eros   504 Jun 14 15:59 savevariables.py
```

Scripts

Variable CDLs  
also saved in  
special directory

```
/sps/eros/users/erosprod/CDS> du -sh Xcat
1.6G    Xcat
/sps/eros/users/erosprod/CDS> du -sh XXcat
3.1G    XXcat
/sps/eros/users/erosprod/CDS> du -sh Xtime
1.4T    Xtime
/sps/eros/users/erosprod/CDS>
```

Output

lm001-10,lm055

Question: Save output in irods?

# Image list: .xtinfo

One list per field:

```
/pbs/home/e/erosprod/CDS>
/pbs/home/e/erosprod/CDS> head -5 /sps/eros/users/erosprod/CDS/Xtinfo/lm033.xtinfo
  filename          mjd          ehjd          fond          psfx          psfy          psfrr          absorp          airmass          date
lm03300trr6h2099.fits 50316.4383 316.93861 -1.0 -1.0 -1.0 -1.0 -1.0 1996-08-20
lm03300trr6i0299.fits 50329.3119 329.81222 2915.0 1.873 1.688 -0.055 0.634 1070289024.0 1996-09-02
lm03300trr6i10114.fits 50337.3894 337.88973 2613.68 1.734 1.552 -0.05 0.645 1067920000.0 1996-09-10
lm03300trr6i2682.fits 50353.3355 353.83582 6078.3 1.612 1.399 -0.001 0.757 1068051008.0 1996-09-26
/pbs/home/e/erosprod/CDS> tail -5 /sps/eros/users/erosprod/CDS/Xtinfo/lm033.xtinfo
lm03317tbrdb1661.fits 52687.245 2687.74469 8873.31 1.556 1.568 -0.129 2.551 -1.0 2003-02-16
lm03317tbrdb2133.fits 52692.1245 2692.62419 1077.32 2.095 2.043 -0.062 2.236 -1.0 2003-02-21
lm03317tbrdb2435.fits 52695.1342 2695.63388 655.51 1.705 1.572 -0.083 2.231 1.491 2003-02-24
lm03317tbrdb2450.fits 52695.2072 2695.70688 668.75 1.564 1.572 -0.1 2.102 1.878 2003-02-24
lm03317tbrdb2745.fits 52698.0877 2698.58738 684.29 1.67 1.505 -0.023 1.974 1.376 2003-02-27
/pbs/home/e/erosprod/CDS>
```

All LMC,SMC fields done

lm014, ccd2 fails

Airmass problem in 1996

# now added to first line

# EROSII Star Catalog files: .cat→.xcat

One catalog per ccd quarter:

```
/pbs/home/e/erosprod/CDS> head -5 /sps/eros/users/erosprod/CDS/Xcat/lm0020m.xcat
# erosid Ra Dec MagR ErrMR XR YR MagB ErrMB XB YB fluxr fluxb nlc medianr sigpullr medianb sigpullb
lm0020m29 82.307940 -69.066350 19.826 0.402 1294.59 1648.89 19.966 0.322 1238.08 1688.88 1187.11 1173.8 375 19.825 0.801 19.965 0.773
lm0020m32 82.287230 -69.067040 20.186 0.771 1357.83 1643.24 20.656 0.821 1301.29 1683.30 349.69 841.63 385 20.133 0.827 20.614 1.53
lm0020m33 82.416890 -69.066680 19.649 0.362 961.89 1644.40 19.842 0.262 905.58 1684.07 811.42 1495.46 382 19.647 0.819 19.84 0.562
lm0020m37 82.580950 -69.067370 20.220 0.932 460.98 1634.80 20.313 0.672 404.99 1673.98 192.4 332.9 420 20.14 0.599 20.289 0.616
/pbs/home/e/erosprod/CDS> tail -5 /sps/eros/users/erosprod/CDS/Xcat/lm0020m.xcat
lm0020m32877 82.66786 -69.09472 19.73 nan 197.58 1397.53 19.68 nan 142.12 1436.64 968.42 1863.06 0 nan nan nan nan
lm0020m32881 82.548744 -69.09559 19.2 nan 560.91 1393.35 19.73 nan 505.24 1432.82 1568.39 1776.37 0 nan nan nan nan
lm0020m32882 82.66947 -69.09533 18.72 nan 192.72 1392.23 19.23 nan 137.27 1431.34 2448.45 2818.45 0 nan nan nan nan
lm0020m32888 82.26939 -69.0961 20.12 nan 1412.83 1393.96 99.0 nan 1356.65 1434.27 670.65 -1.0 0 nan nan nan nan
lm0020m32891 82.494316 -69.096664 18.71 nan 726.93 1385.4 19.59 nan 671.17 1425.04 2457.88 2028.21 0 nan nan nan nan
```

flux, nlc, median, sigpull added

Varflag eliminated in .xcat

faint objects with no lightcurve added at end

missing data set to nan

# EROSII Lightcurve files: .time→.xtime

One file per star:

```
/pbs/home/e/erosprod/CDS> head /sps/eros/users/erosprod/CDS/Xtime/lm002/lm0020m/lm0020m10008.xtime
# star: erosid      MagR      ErrMR      XR      YR      MagB      ErrMB      XB      YB
#           lm0020m10008      17.324      0.042      1049.83      1216.79      18.010      0.055      994.14      1256.87
#
#   date      MagR      ErMagR      MagB      ErMagB      fluxr      efluxr      fluxb      efluxb      chi2r      chi2b      datecode      redimage      blueimage
315.89299      17.323      0.055      18.003      0.073      9027.8      464.95      8701.0      595.65      1.647      4.246      6h1975      lm00200trr6h1975.fits      lm00210tbr6h1975.fits
325.82966      17.284      0.054      nan      nan      9451.79      478.24      nan      nan      1.598      nan      6h2995      lm00200trr6h2995.fits      lm00210tbr6h2995.fits
327.82295      17.33      0.037      17.97      0.054      9317.3      311.69      9655.4      450.13      1.845      1.96      6h3195      lm00200trr6h3195.fits      lm00210tbr6h3195.fits
334.87162      17.337      0.034      17.993      0.045      9229.93      289.5      9289.05      370.04      2.109      2.845      6i07117      lm00200trr6i07117.fits      lm00210tbr6i07117.fits
351.82713      17.325      0.037      17.992      0.051      9292.58      313.62      9281.07      418.0      1.736      1.474      6i24101      lm00200trr6i24101.fits      lm00210tbr6i24101.fits
361.85427      17.276      0.063      17.987      0.096      9260.37      558.38      8325.66      793.59      1.733      2.257      6j04130      lm00200trr6j04130.fits      lm00210tbr6j04130.fits
/pbs/home/e/erosprod/CDS> tail -5 /sps/eros/users/erosprod/CDS/Xtime/lm002/lm0020m/lm0020m10008.xtime
2680.7041      nan      nan      18.02      0.065      nan      nan      8614.06      519.7      nan      1.411      db0910      lm00200trrdb0910.fits      lm00210tbrdb0910.fits
2683.58571      nan      nan      18.01      0.062      nan      nan      8850.05      503.2      nan      1.209      db1225      lm00200trrdb1225.fits      lm00210tbrdb1225.fits
2686.57221      nan      nan      18.059      0.093      nan      nan      8316.39      718.26      nan      1.191      db1516      lm00200trrdb1516.fits      lm00210tbrdb1516.fits
2697.63455      nan      nan      17.922      0.052      nan      nan      9382.98      456.8      nan      1.678      db2632      lm00200trrdb2632.fits      lm00210tbrdb2632.fits
2697.74525      nan      nan      17.959      0.076      nan      nan      8967.24      641.48      nan      0.953      db2666      lm00200trrdb2666.fits      lm00210tbrdb2666.fits
```

flux, eflux, chi2, image file names added

Red camera failure at end

missing data = nan

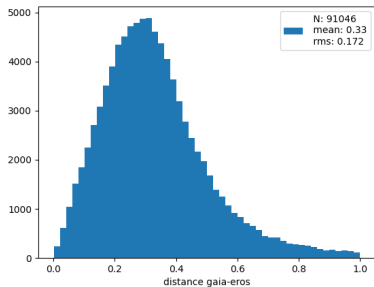
# LMC Variable stars

Match with Gaia, Ogle4, Macho, and Epoch/EROS catalogs  
/CDS/Variables/makevarlist.py — > makevarlist\_1\_80.out

191374 stars: magnitudes, periods, amplitudes

Need to add Gaia periods

## Gaia-EROS ra-dec match



## EROS-Ogle3 time match

