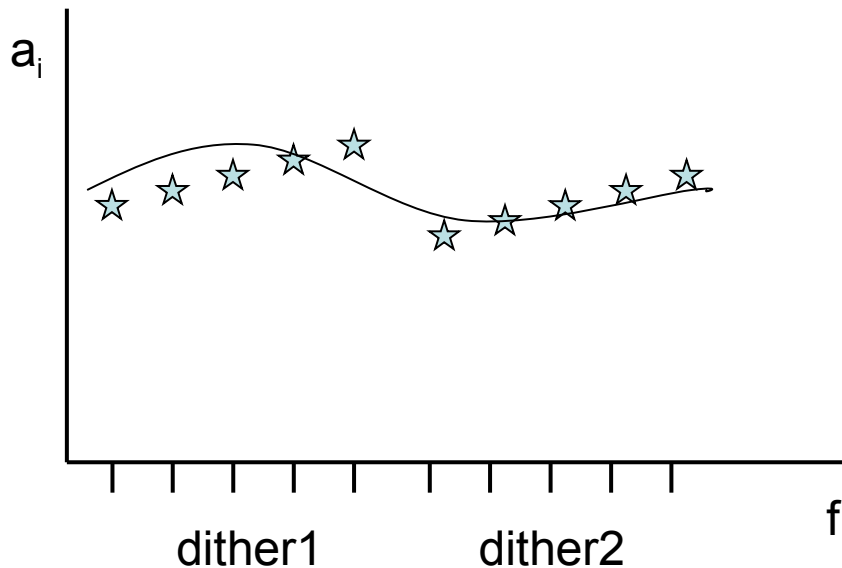# Astrometry update

- Modifications to astrometry pipeline
  - Transport Idac fits tables ➡ python DB
    precision loss
  - Global astrom algorithm
    reminiscence from Denis days. Overlap used
    average position gnomonic grid. Now correct
    local gnomonic grid
- Max PV polynome
  - 3d restricted by DB parameters

Astrometric update

- Global astrometry boundary condition
  - $X = a_0(f) + a_1(f)\, x + a_2(f)\, y + \dots$

    where $a_{i0}(f) = 1$, $a_{i1}(f) = f$, $a_{i2}(f) = 2f^2 - 1$, …

    chebychev polynome

Astrometric update

- Ways to go
  - Global astrom individual or consecutive dithers
  - Then combine regridded frames

- Global pool
  - Denser reference grid ➡ tighter fit
  - Multiple determination of same object combined

- Alternative
  - Disjunct chebychev polynomes
  - Combines overlap information widely different dithers

Astrometry update

- ## The LBC case
  - ### Pre-pipeline (needs python mods)
    - Apply radial deformation on (X,Y) values in catalog
    - Use this catalog to pre/aplastrom and associate
    - Use original catalog + pairing for astrom
  - ### In-pipeline (needs c-code + algorithm mods)
    - Implement alternative to AFFINE deformation in pre/aplastrom