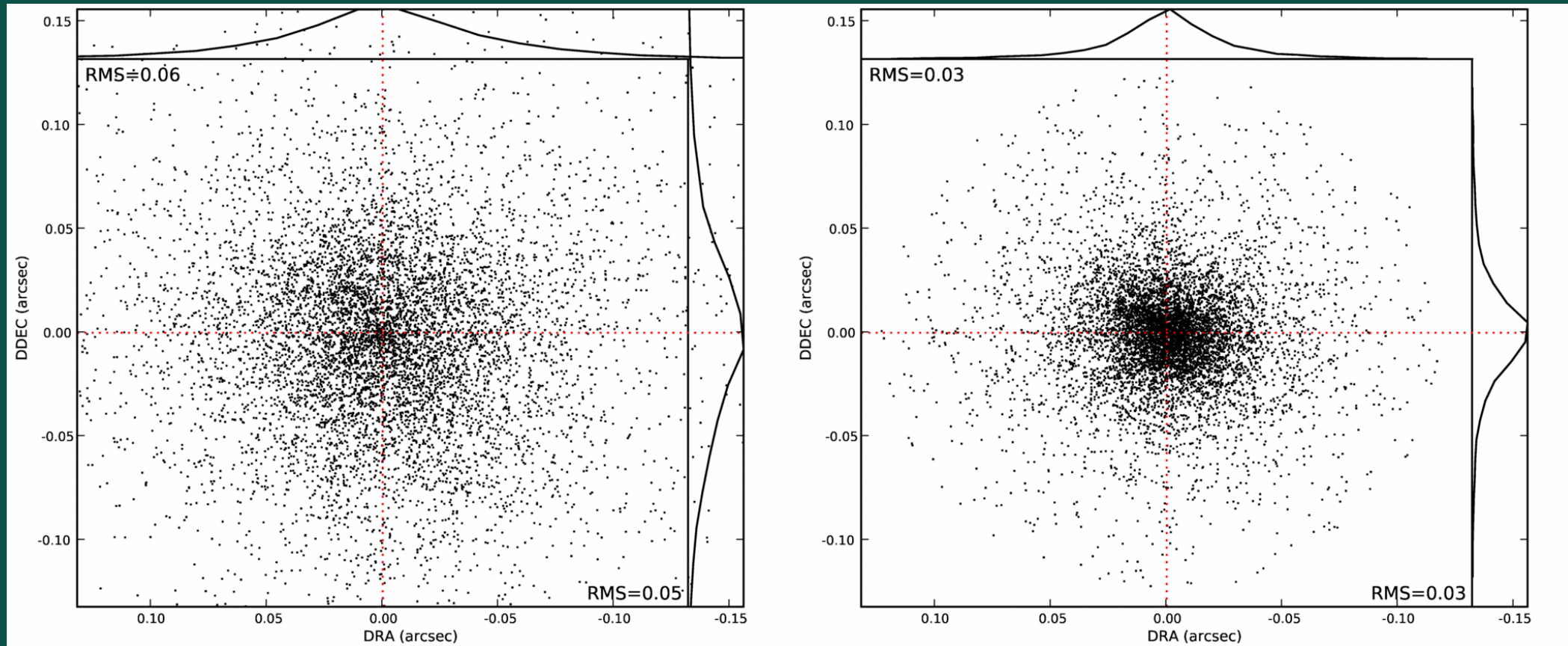


# Astrometry in Astro-WISE

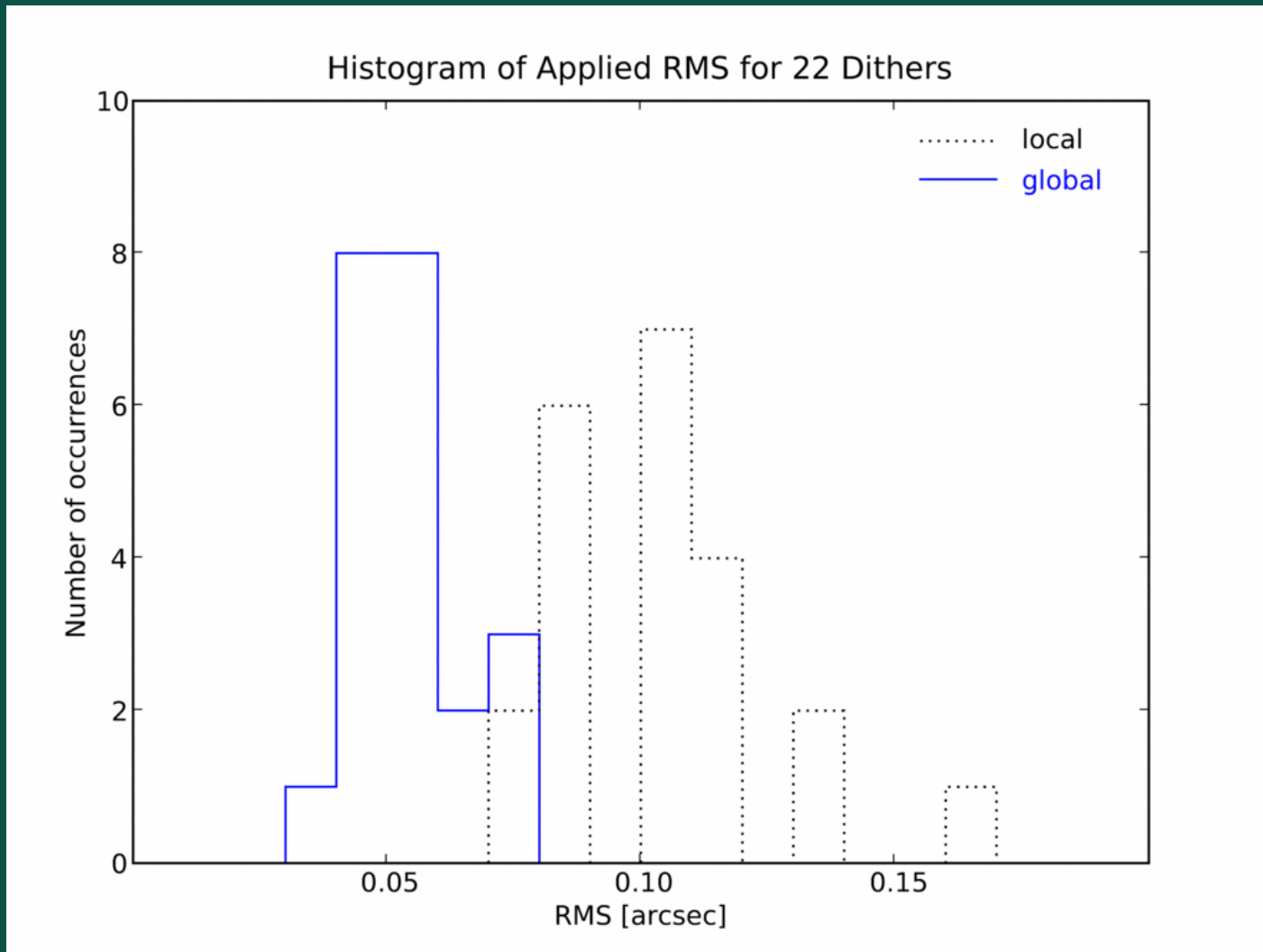
## Astro-WISE Global Astrometry at Work



Local

Global

# Improvement

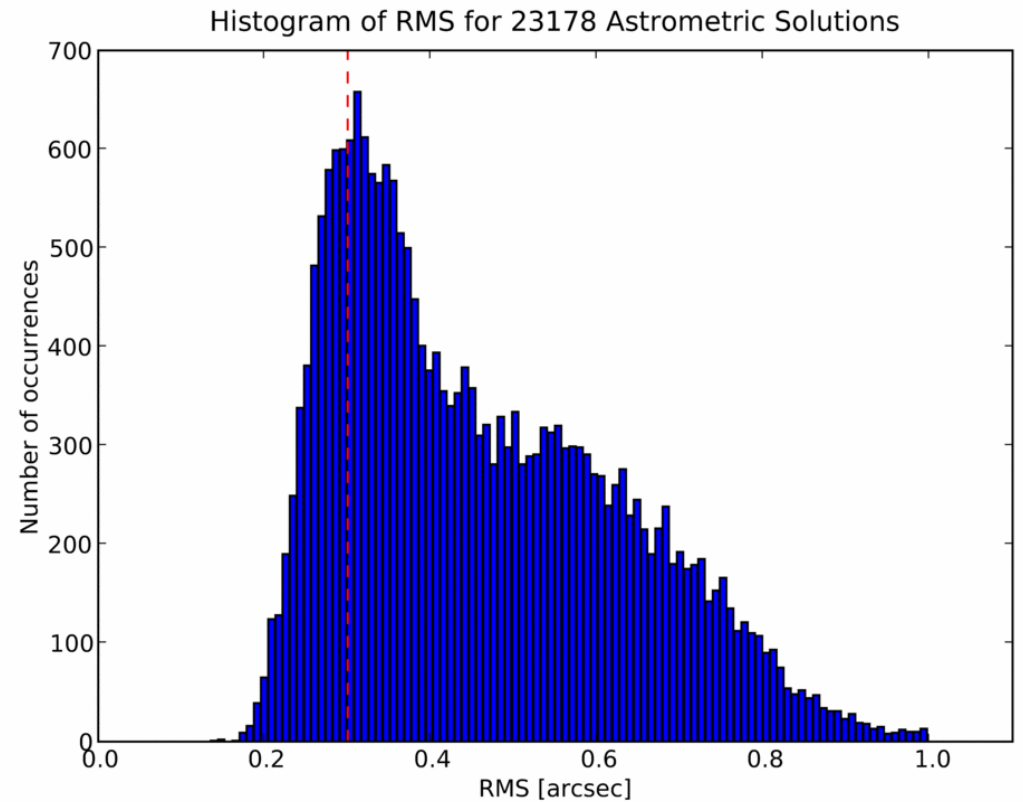
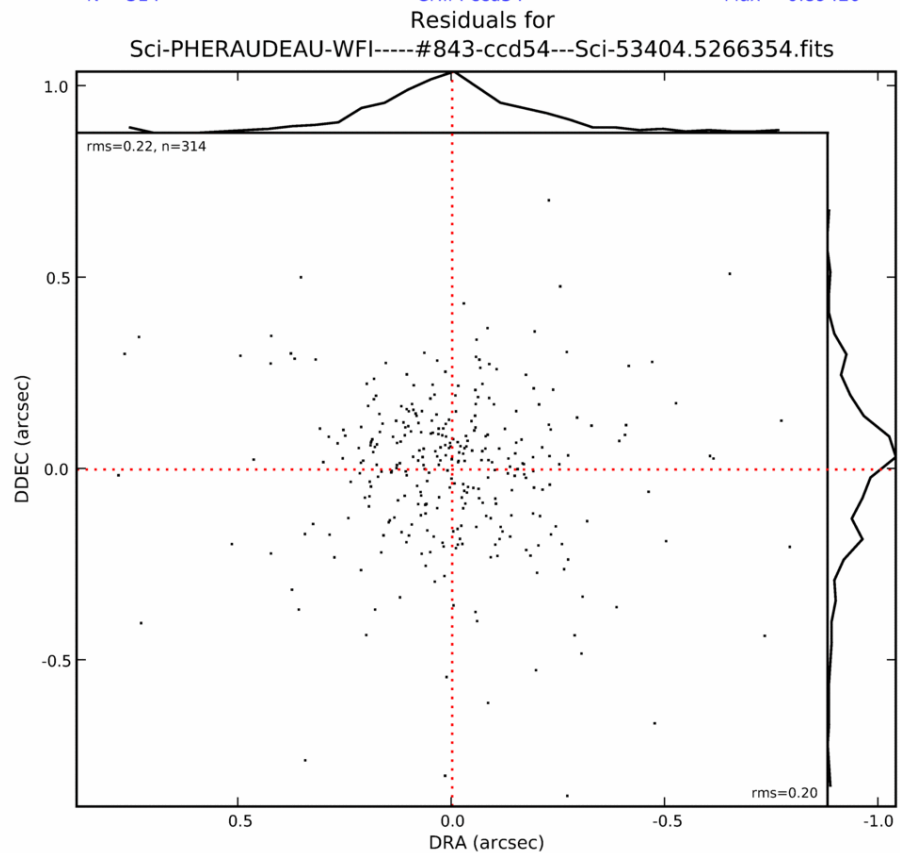


# Astrometry in Astro-WISE

- Astrometry in AW works!
  - “bugs” in LDAC and the Python layer fixed
  - new applied inspection methods created
- Fixed focal-plane geometry
  - closely matched alt-az minimizes differences in higher order distortion
  - higher order terms can compensate, but not default (data dependent)

# Local Astrometry

DATE\_OBS = 2002-06-15 02:46:22      <DRA> = 0.00290 +- 0.21901  
<RA> = 204.01109                      <DDEC> = -0.00039 +- 0.20422  
<DEC> = -29.97980                      RMS = 0.29946  
N = 314                                  CHIP: ccd54                      Max = 0.89420

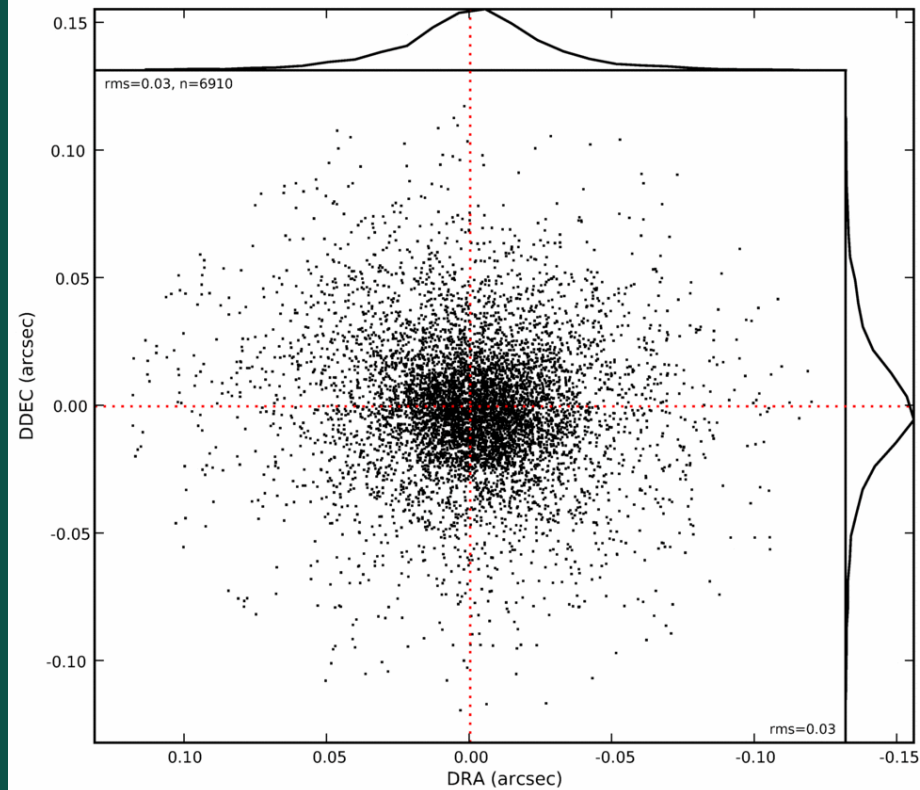


# Global Astrometry

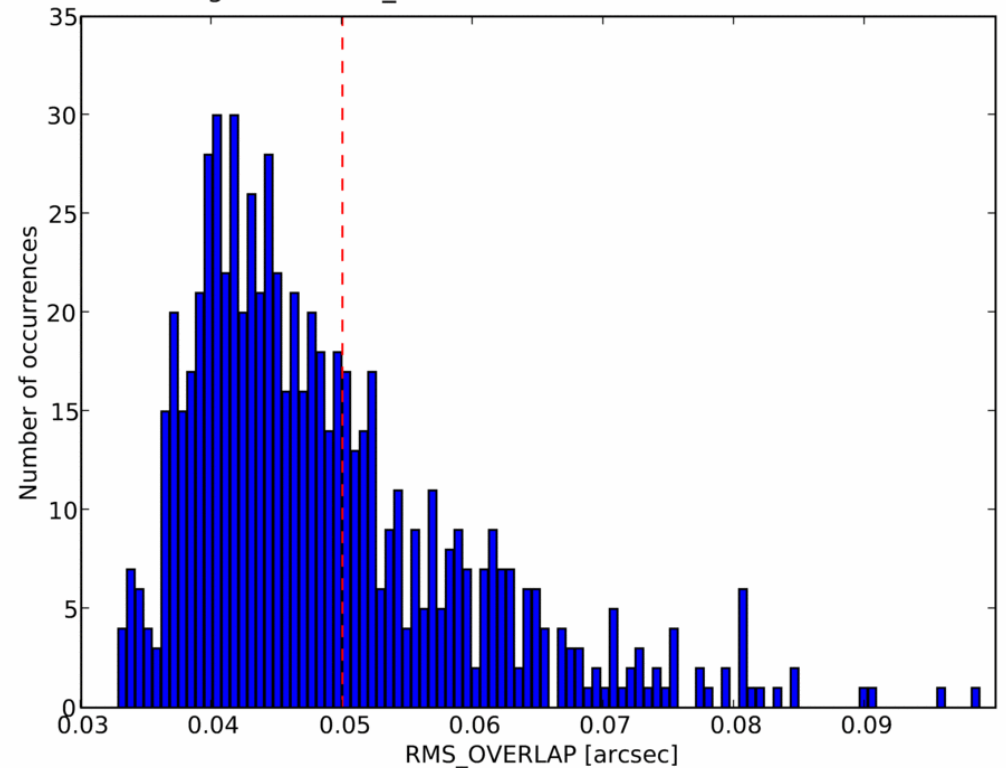
DATE\_OBS = N/A  
<RA> = 53.11194  
<DEC> = -27.79373  
N = 6910

<DRA> = -0.00093 +/- 0.02919  
<DDEC> = -0.00005 +/- 0.02728  
RMS = 0.03996  
Max = 0.11972

All Overlap Residuals for  
GAS-GOODS\_R-54527.8474477



Histogram of RMS\_OVERLAP for 710 Astrometric Solutions



# Inspections

- `AstrometricParameters.inspect()`
- `AstrometricParameters.plot_residuals_to_usno()`
- `AstrometricParameters.plot_residuals_to_regrid()`
- `GAstrometric.inspect()`
- `CoaddedRegriddedFrame.plot_regrid_residuals()`
- `BaseFrame.inspect(compare=True)`

# Documentation

- On-line HOW-TOs and Manual
  - HOW-TO Derive an Astrometric Solution
  - HOW-TO Create Global Astrometric SourceLists
  - HOW-TO Derive a Global Astrometric Solution
  - HOW-TO Inspect an Astrometric Solution\*
  - HOW-TO Troubleshoot an Astrometric Solution\*
- Report on Astrometry in Astro-WISE

# Reprocess!

- Command-line (manual)
  - AstrometricParametersTask
  - GastrometricTask
- TargetProcessor (automatic)
  - all previous versions outdated
  - use after new astrometry release is in AWBASE

AstrometricParameters (flagged)

Details	
Name	Value
type	AstrometricParameters
chip	ccd50
filter	#844
quality	136
is_valid	1
creation	06 Mar 2008 18:23:19
parameter	process_params.SOURCE_CODE_VERSION, value 1 (!= 2)
rebuild dependency	ReducedScienceFrame (30 Mar 2000 02:50:08)



