

# **RSS Mentor**

## **P. Kiedron**

# Major events since August 2004

Shading problem troubleshooting: September 2004  
(Mike Rainwater, John Schmelzer, Jerry Berndt)

Web pages completed: January 2005  
<http://www.arm.gov/instruments/instrument.php?id=31>  
(Rolanda Jundt)

ARM Science Team Meeting: March 2005  
(Poster and talk)

CCD offset adjustment: March 2005  
(Mike Rainwater)

NetCDF archiving first contact: April 2005  
(Min Liang)

Calibrated data released: June 6, 2005  
<http://iop.archive.arm.gov/arm-iop/>

Shading problem troubleshooting: April-June 2005  
(Mike Rainwater, Jim Schlemmer, Jerry Berndt)

Portable calibrator failure: May 2005  
(Mike Rainwater, Jim Schlemmer, Jerry Berndt)

# Status of RSS data processing

## Automatic data acquisition (xtty)

- instrument parameters control
- file parsing
- calibration file detection and extraction

## Java based “jrss” RSS data processing toolkit

- each scan wavelength correction
- time dependent responsivity
- noise calculations
- nonlinearity and cosine corrections
- automatic calibrated file generation

All processing on iop34 SGP based computer

Quick look daily QC (ASRC server)

<http://oink.asrc.cestm.albany.edu/~rss/RSS105/qc/>

# Current and future tasks

Ongoing data QC

Ongoing calibration data processing

Automatic calibration data processing  
algorithm development

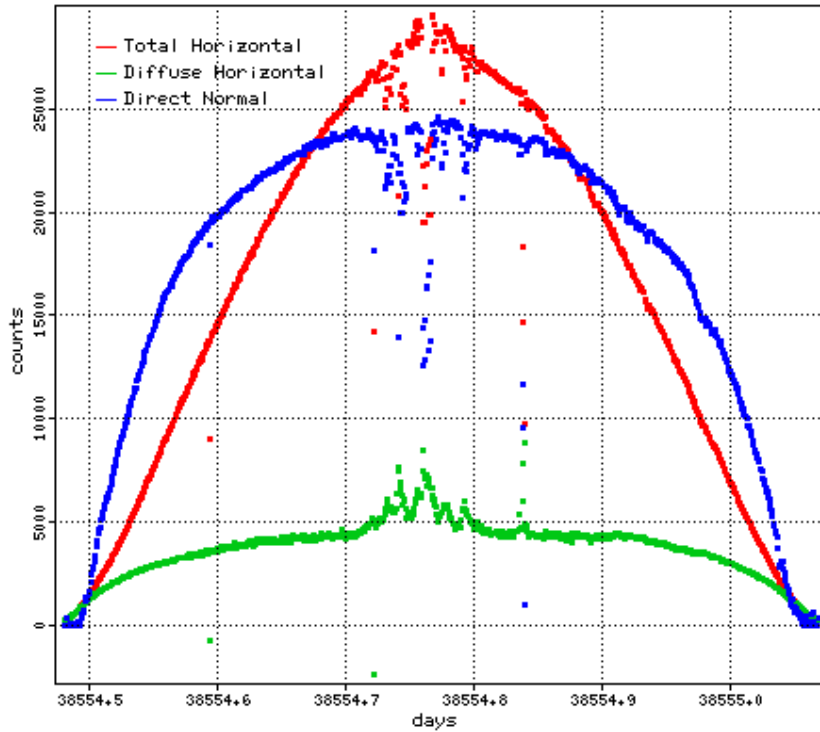
Langley regression algorithm development

Forgan process algorithm development

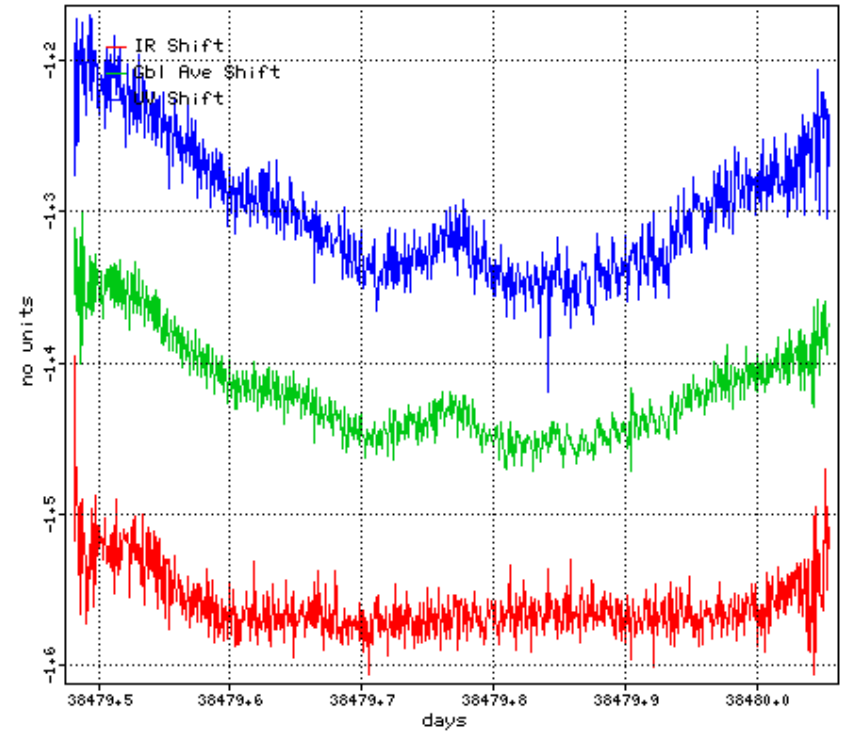
Instrument overhaul planning

# Daily QC of RSS data

Time series @pixel 500



Fraunhofer Shifts



`/pub/RSS105/SGP/Normalized/RSS105.20050722_060048.SGP.N0.qc.gz`

ASRC/SUNY

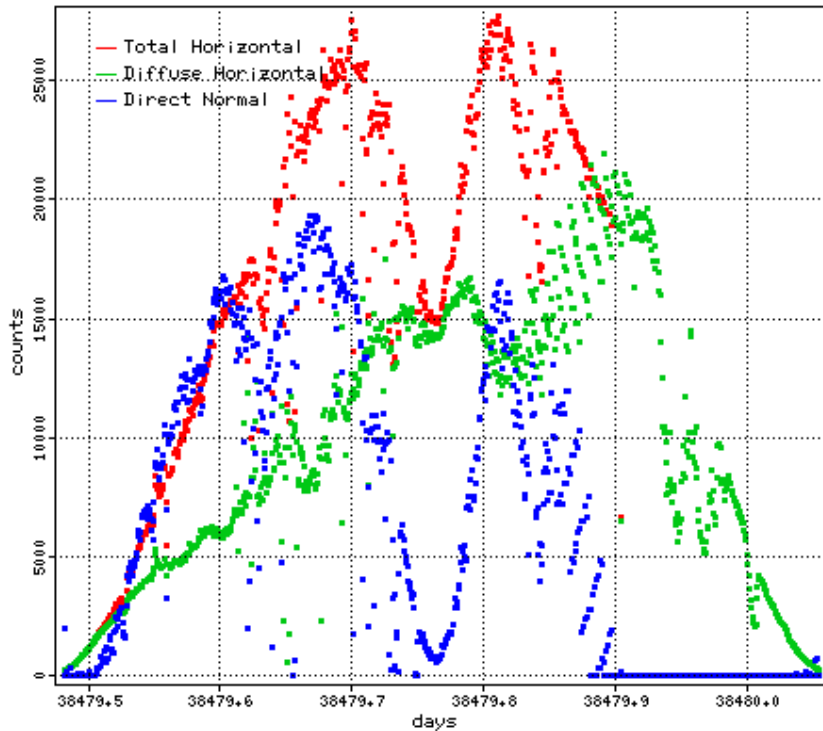
`/pub/RSS105/SGP/Normalized/RSS105.20050508_060047.SGP.N0.qc.gz`

ASRC/SUNY

<http://oink.asrc.cestm.albany.edu/~rss/RSS105/qc/>

# Shading problem: 20 April -29 June

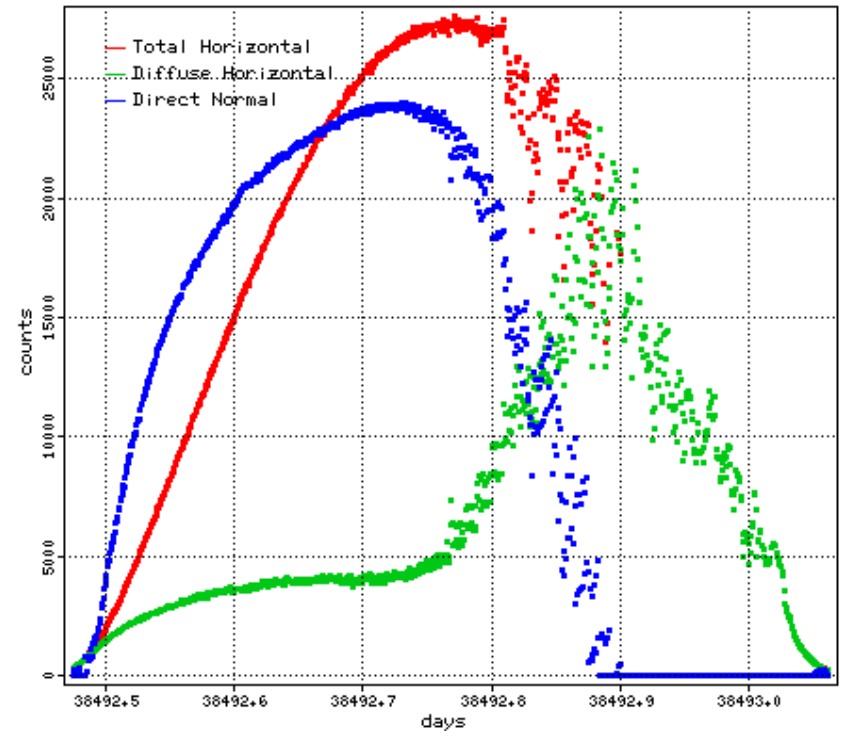
Time series @pixel 500



p:/pub/RSS105/SGP/Normalized/RSS105.20050508\_060047.SGP.N0.qc.gz

ASRC/SUNY

Time series @pixel 500



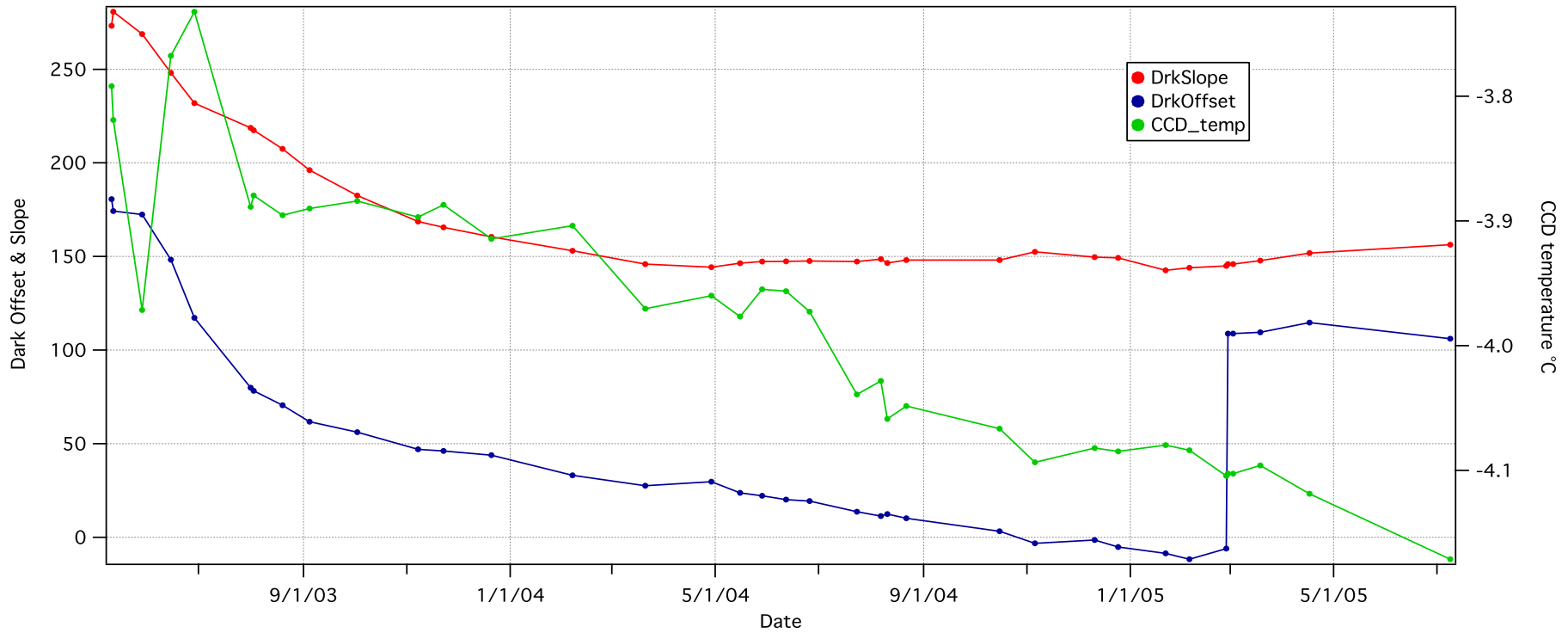
p:/pub/RSS105/SGP/Normalized/RSS105.20050521\_060053.SGP.N0.qc.gz

ASRC/SUNY

**Only total horizontal (no direct and diffuse)  
in the following periods**

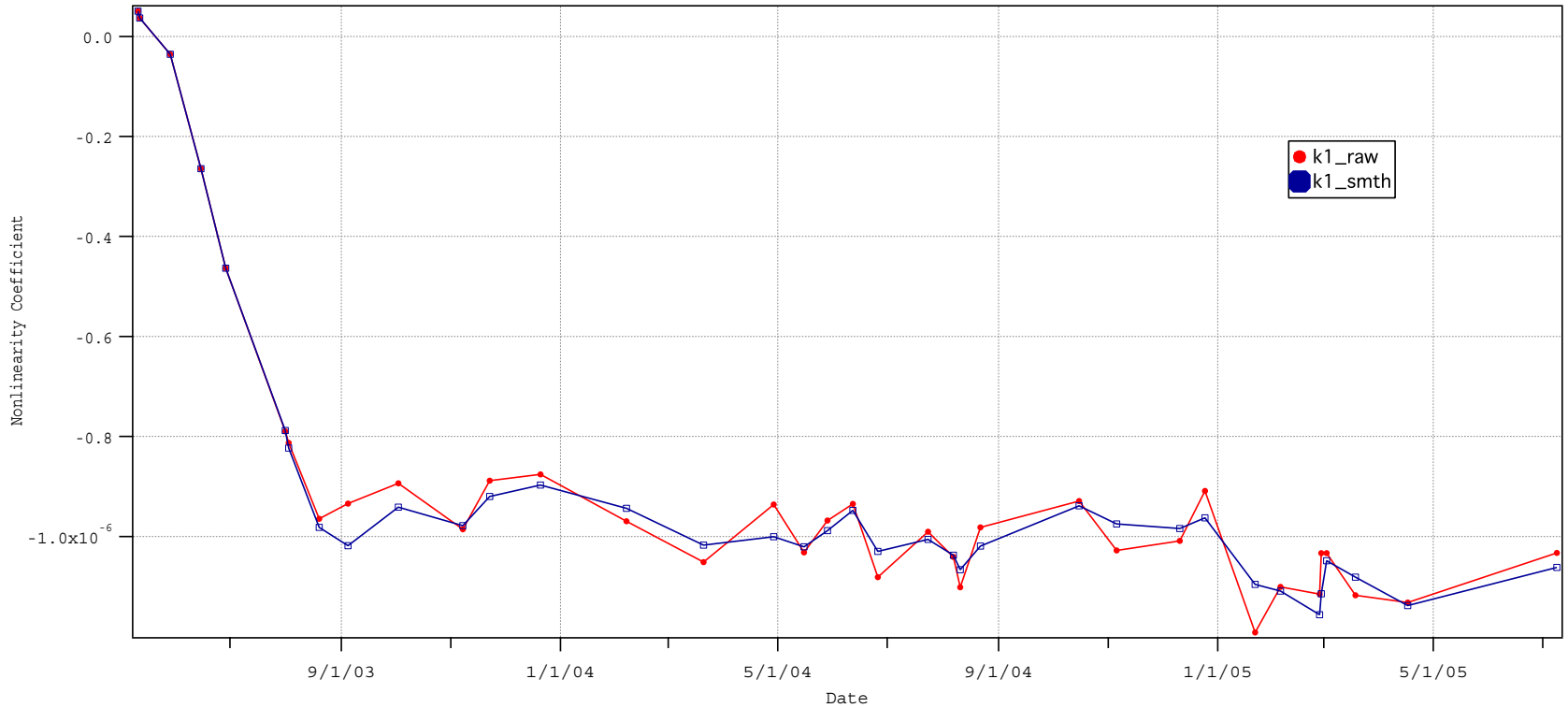
All day bad shading during:	[04/20/05, 05/03/05]
Bad shading from 1h before noon:	[05/03/05, 05/26/05]
All day bad shading:	[05/27/05, 05/31/05]
All day bad shading:	[06/01/05, 06/03/05]
Bad shading from 1h before noon:	[06/04/05, 06/16/05]
Good all day with caution:	[06/17/05, 06/28/05]
Good all day:	[06/29/05, 06/30/05]

# Instrument health: CCD

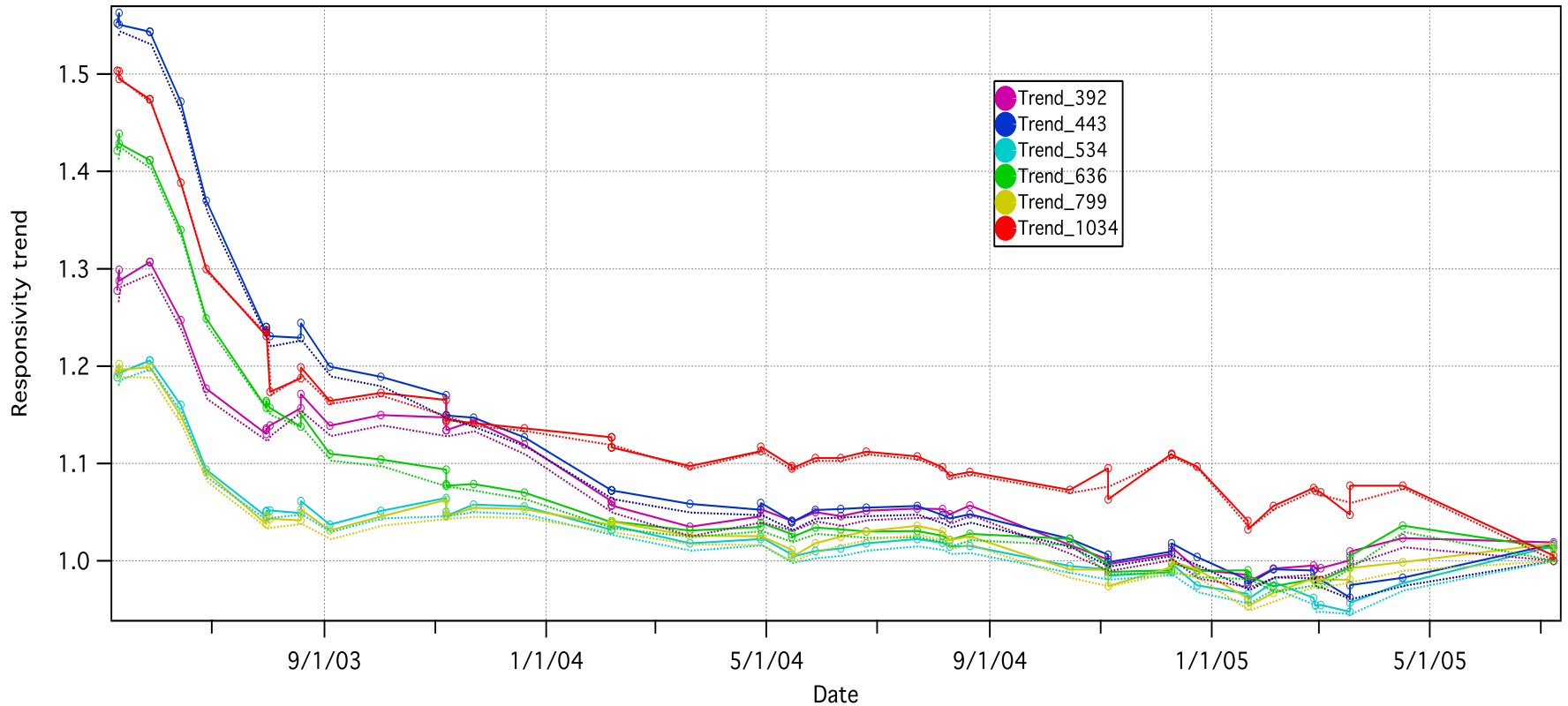




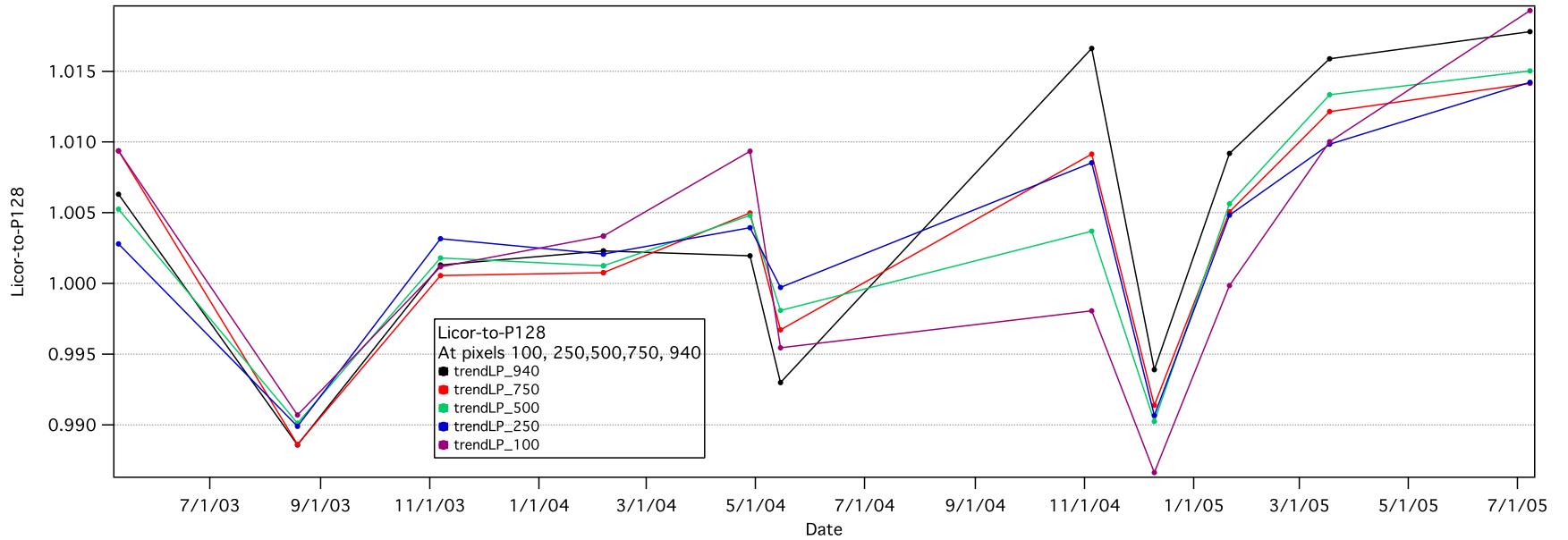
# Instrument health: CCD nonlinearity



# Instrument health: responsivity drift



# Calibrators stability



# Calibrators stability

