

**From:** Frank Masci <fmasci@ipac.caltech.edu>  
**Subject:** Fwd: moon filter testing  
**Date:** May 9, 2013 12:43:23 PM PDT  
**To:** fmasci@ipac.caltech.edu

2 Attachments, 54 KB

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From: Frank Masci <fmasci@ipac.caltech.edu>  
Subject: Re: moon filter testing  
Date: April 24, 2013 3:19:15 PM PDT  
To: Roc Cutri <roc@ipac.caltech.edu>, Edward Wright <wright@astro.ucla.edu>, Davy Kirkpatrick <davy@ipac.caltech.edu>, ...

Hi all,

These tests (64 of them) are now ready for analysis. Access details are below.

I explored the local robust pixel-RMS statistics from the statistics tables (included below) for all 8 tiles and 8 moon-filtering cases. Two flavors of metrics were used: (i) a trimmed lower-tail standard-deviation from the mode around the median depth-of-coverage, computed within 3x3 square partitions on each tile and (ii) based on the local 50% - 15.86% value, also using only pixels around the median depth.

I would put more faith in (i) since it's more immune to the presence of sources/bright structure. Nonetheless, these complement each other and are qualitatively consistent.

Attached are the plots for each metric. The vertical bars are not error bars, but the max,median,min RMS values over all tile partitions.

You can draw your own conclusions. I'll let someone else explore the zero-PM distributions for each case. If my schedule allows later this week, I'll have a go at exploring these too.

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Under the link below you'll find:

- w2 fits image co-adds;
- source extraction (mdex) tables with PM info;
- tables of co-add pixel statistics and metrics.

<http://wise2.ipac.caltech.edu/proj/fmasci/AllWISE/NEWmoontests/>

Here's what the labels embedded in each filename mean:

agg22 = 22deg + more stringent/aggressive filtering params

agg237 = 23.7deg + more stringent/aggressive filtering params

agg254 = 25.4deg + more stringent/aggressive filtering params

agg27 = 27deg + more stringent/aggressive filtering params

nom22 = 22deg + all-sky filtering parameters

nom237 = 23.7deg + all-sky filtering parameters

nom254 = 25.4deg + all-sky filtering parameters

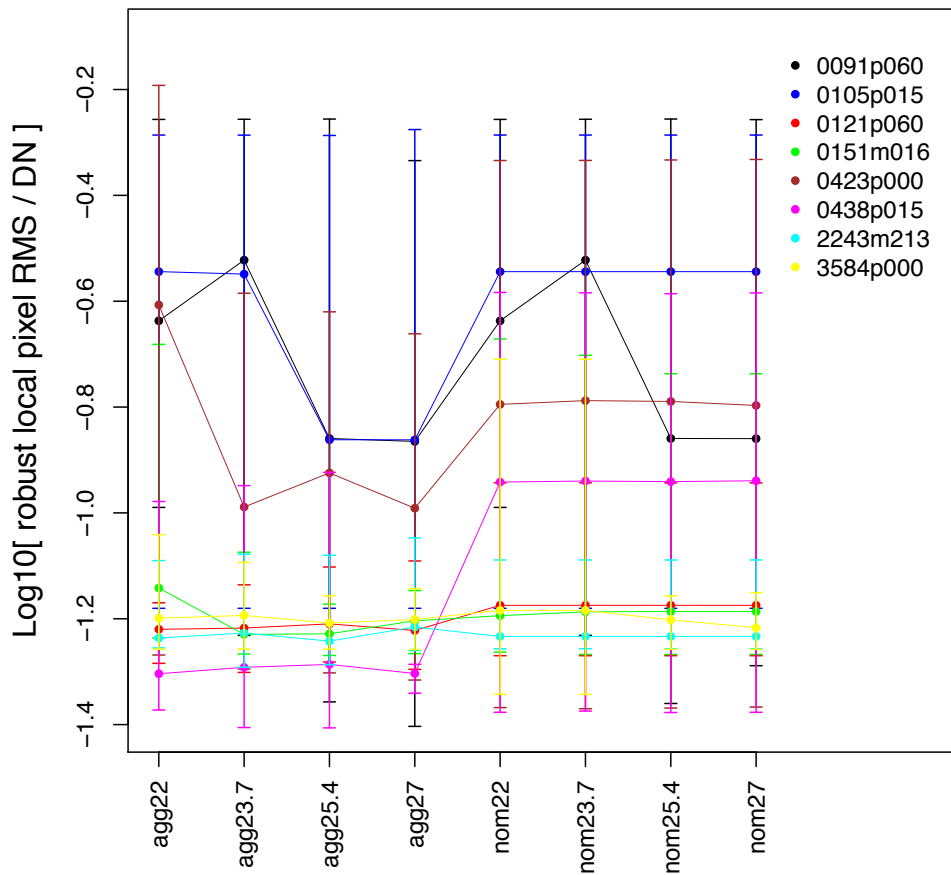
nom27 = 27deg + all-sky filtering parameters

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Regards, Frank



**Local RMSs based on lower-tail stdev from mode**



### Local RMSs based on 50 – 16 %-tile difference

