

Jan 28, 2020

Dr. Steven Crawford
AAS Scientific Editor

Re: The Pan-STARRS Data Processing System

Dear Dr. Crawford,

We are resubmitting our article "Pan-STARRS Pixel Processing : Detrending, Warping, Stacking" after addressing suggestions raised by the referee. We thank the referee for the clear and succinct report. We have made the following changes to address the reviewer's comments:

First, rather than a flowchart as such, we have added Table 1 to list the sequence of detrending steps in their correct order, the IPP stage in which they are run, and the section number where they are discussed.

Second, we have added Figure 16 illustrating the sequence of warping and stacking along with an illustration showing how the chips in the camera relate to the skycells in the tessellation.

In addition, we have made the following modifications for clarify:

We have also realized that sections 3.7 & 3.11 had some overlapping content about the background subtraction. We have moved section 3.7 to 3.10 to place the related discussions together and modified the wording in section 3.11 to remove duplicative text and instead to focus on the impact of the background subtraction on large astrophysical features. The name of section 3.11 has also been correspondingly been changed from "Background (`Sky") Subtraction" to "Astrophysical vs Other Backgrounds".

As a consequence, sections 3.8,3.9,3.10 have now become 3.7,3.8,3.9.

Finally, at the urging of a referee of one of the other papers, we have reduced the number of different type faces used for different concepts and added a description of this usage at the end of Section 1.

Sincerely,

Eugene Magnier
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Institute for Astronomy