

First results with the boloSource() algorithm: photometry of faint standard stars observed by Herschel/PACS

G. Marton · R. Vavrek · C. Kiss · T. G. Müller

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Abstract The boloSource() algorithm is a tool to separate the signal of compact sources from that of the diffuse background in the timeline of far-infrared measurements performed by the PACS camera of the Herschel Space Observatory. An important characteristic and quality indicator of this method is that how well it can reproduce the flux of faint standard stars which have reliable flux estimates. For this propose we selected a few calibrator targets and constructed light curves by extracting point source flux for each repetition of the measurements independently using standard aperture photometry methods. These were compared with the light curves obtained using the boloSource() method on the same dataset. The results indicate that boloSource() provides a similar level of photometric accuracy and reproducibility as the usual flux extraction and photometry methods. This new technique will be developed further and also tested against other methods in more complex fields with the goal to make it usable for large-scale studies in the future.

Keywords PACS · Timeline · Photometry · Faint sources

G. Marton (✉) · C. Kiss
Konkoly Observatory, Research Center for Astronomy and Earth Sciences,
Hungarian Academy of Sciences, Konkoly Thege 15-17,
1121 Budapest, Hungary
e-mail: marton.gabor@csfk.mta.hu

R. Vavrek
ESAC, Madrid, Spain

T. G. Müller
Max-Planck-Institut für Extraterrestrische Physik, Garching, Germany