

ABSTRACT

PEZZUTO, Stefano

IFSI - INAF, Rome

**A new approach to the detection of outliers with the sigma-clipping method
applied to PACS photometry observation**

The detection of outliers is an important problem in data analysis. A simple way to address this problem is via sigma-clipping, ie looking at values that differ from the mean by more than a certain number of standard deviations. In this poster I show a new approach to the sigma-clipping adopting a number of standard deviations which depends on the size of the sample instead of being fixed, as in the common approach. I show how this technique works well in detecting outliers (glitches) in the photometry maps obtained with Herschel/PACS. This technique can be generalized to other instruments, or to solve other problems like finding the detection limit in a map, or deriving an upper limit for an undetected source.