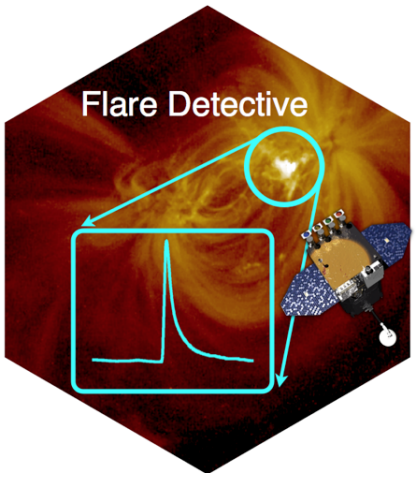
Smithsonian Astrophysical Observatory



The AIA Flare Detective

A module for the AIA Feature Finding Team

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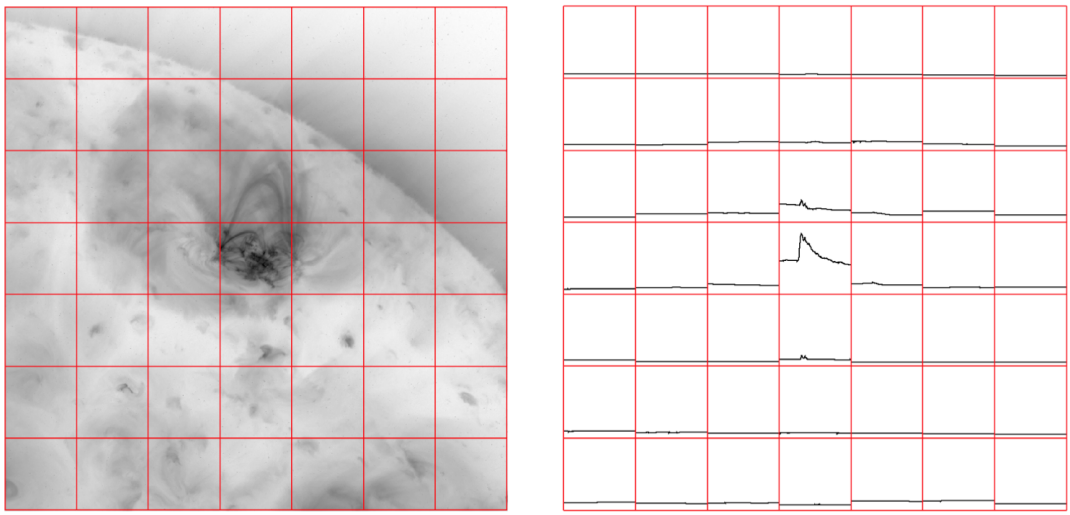

Figure 1: name of fig

1 Introduction

The Feature Finding Team (FFT) is an international consortium with the task to produce a comprehensive automated feature and event recognition system for SDO. It provides several different modules to look at different features and events. The flare detective is the module with the task of detecting flares from AIA images

1.1

1.1.1

2 Algorithm

FFT modules works a bit differently then the way one would build such a module if all data was available The flare detective is fed one image at a time There is no options to retrieve that image at a later time All relevant information about past images is stored in an internal status of the module One instance of the flare detective works with images from one AIA channel (independently from other instances of the module that may be running on otehr channels)

The large AIA images are segmented in a small number of macropixels Lightcurves are computed for each macropixels Flares start times are determined when the derivative of the lightcurve reaches a certain threshold Flares end times are determined when the flux is lower then a certain fraction of the peak flux

3 Itemize environment

- .....
- ....

4 Enumerate

1. .....
2. .....

5 tabular

x	y	z
a	b	c

References

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