GROK LEARNING   Sandipan Dey ▾

📄 Problem (/learn/data-driven-astro/module-2/15/) **Challenge: Binapprox on FITS**

The arrays should be of the same shape as the original FITS files, i.e. `(200, 200)` and have one extra dimension for the bins.

To check that your functions work correctly, you can compare them against the following example. Since the arrays are quite big, we'll only look at the central values:

```
>>> mean, std, left_bin, bins = median_bins_fits(['image0.fits', 'image1
>>> median = median_approx_fits(['image0.fits', 'image1.fits', 'image2.f
>>> mean[100, 100]
0.018398113548755646
>>> std[100, 100]
0.010496325561403296
>>> left_bin[100, 100]
0.0
>>> bins[100, 100, :]
array([ 0.,  2.,  0.,  0.,  0.])
>>> median[100, 100]
0.014199583324194326
```

If you call your function using all the 12 FITS files, you should get:

```
>>> mean, std, left_bin, bins = median_bins_fits(['image{}.fits'.format(
>>> median = median_approx_fits(['image{}.fits'.format(str(i)) for i in
>>> mean[100, 100]
0.014677493579008362
>>> std[100, 100]
0.0082645758594887056
>>> left_bin[100, 100]
0.0
>>> bins[100, 100, :]
array([ 4.,  5.,  0.,  0.])
>>> median[100, 100]
0.012611349614136185
```

💡 **Hint**

You can also compare your results against the solution of the first median FITS problem.