

ctools - Bug #1526

sensitivity calculation in cssens

09/16/2015 12:06 PM - Gerard Lucie

Status:	Closed	Start date:	09/16/2015
Priority:	Normal	Due date:	
Assigned To:	Gerard Lucie	% Done:	100%
Category:		Estimated time:	0.10 hour
Target version:	1.0.0		
Description			
In the conversion from flux in cm-2s-1MeV-1 to erg cm-2 s-1 the division by <code>erg_mean*erg_mean</code> has to be replaced by <code>erg_mean*e_mean</code>			

History

#1 - 09/18/2015 02:02 PM - Gerard Lucie

related branch: 1526-sensitivity_tev2erg_conversion

#2 - 09/18/2015 02:51 PM - Gerard Lucie

- Status changed from New to Pull request

- % Done changed from 0 to 100

#3 - 09/21/2015 06:28 PM - Knödseder Jürgen

- Status changed from Pull request to Closed

- Target version set to 1.0.0

I got the code from the branch but it had some additional changes (print statements, which specifically were not compliant to Python 3.x, calling of the simulation code twice, conversion of energy into log energy values). I reverted these changes so that the only change should now concern the energy correction.

Merged into devel.

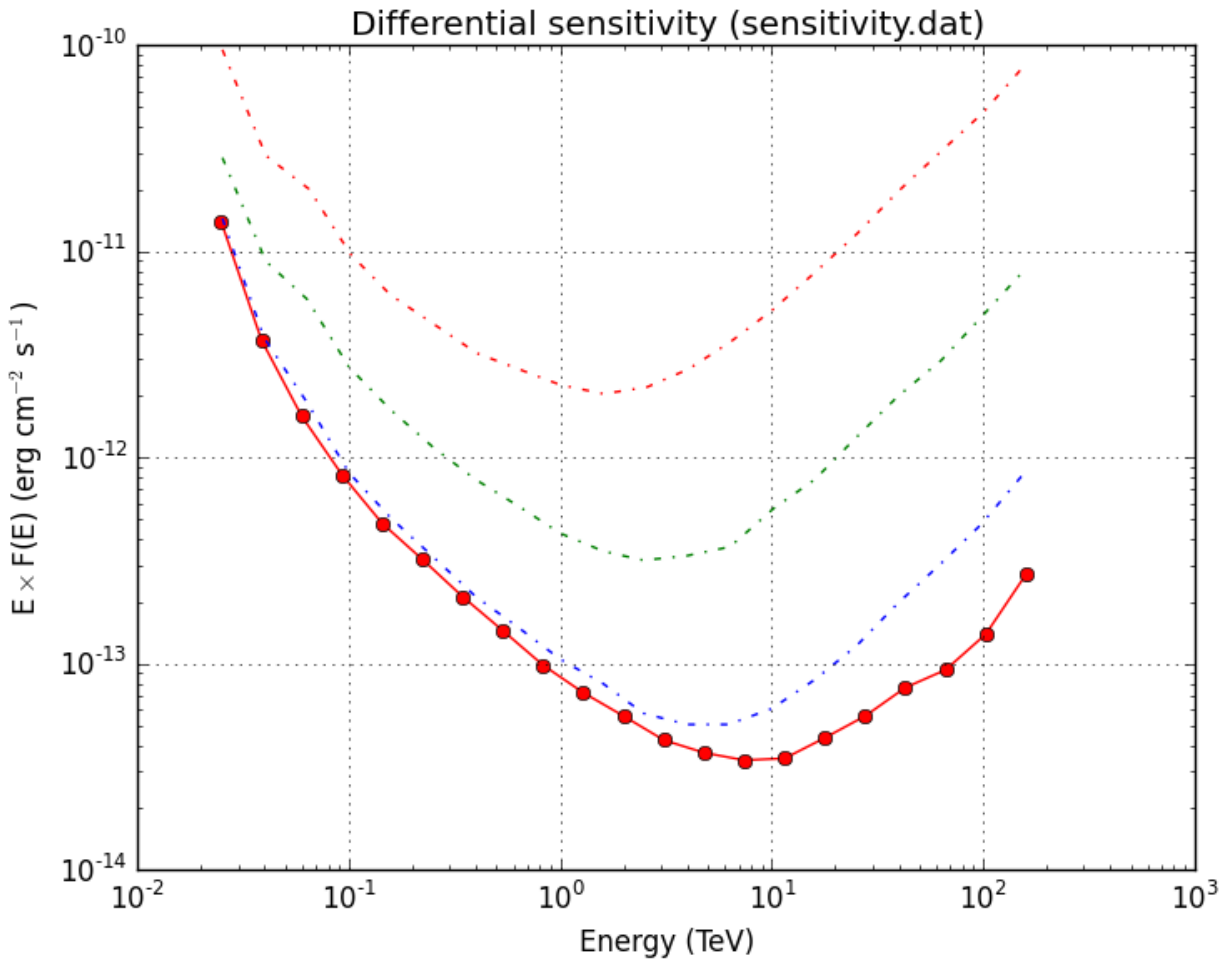
#4 - 09/24/2015 02:48 PM - Knödseder Jürgen

- File `sensitivity.png` added

There was another problem in cssens related to an internal quality check which led to a looping until the maximum number of iterations were exceeded. I removed now the quality check.

The following command sequence gave the output shown below (produced using the `show_sensitivity.py` script attached):

```
$ cssens debug=yes chatter=3
Calibration database [prod2]
Instrument response function [South_50h]
Effective exposure time (s) [180000.0]
Radius of ROI (deg) [5.0]
Source model [CTOOLS/share/models/crab.xml]
Source name [Crab]
Lower energy limit (TeV) [0.020]
Upper energy limit (TeV) [200.0] 199.0
Number of energy bins for differential sensitivity computation [21]
```



#5 - 09/24/2015 02:49 PM - Knödseder Jürgen

- File show_sensitivity.py added

Files

sensitivity.png	48 KB	09/24/2015	Knödseder Jürgen
show_sensitivity.py	8.16 KB	09/24/2015	Knödseder Jürgen