ctools - Action #1272

Feature # 1270 (Closed): Write ctools & gammalib release 1.0.0 paper

Demonstrate how ctools & GammaLib can be used for Fermi analysis

07/11/2014 03:32 PM - Knödlseder Jürgen

Status:	Closed	**Start date:**	07/11/2014
Priority:	Normal	**Due date:**	09/01/2014
Assigned To:	Schulz Anneli	**% Done:**	100%
Category:		**Estimated time:**	0.00 hour
Target version:	Release 1.0 paper		

Description

We want to demonstrate how ctools & GammaLib can be used for a Fermi/LAT analysis. For this we have to define a test case and present this test case to the Fermi/LAT collaboration and ask for approval.

Milestone is the Fermi/LAT collaboration meeting in September.

History

#1 - 10/16/2014 11:55 AM - Schulz Anneli

- % Done changed from 0 to 100

We presented our results at the Fermi-LAT collaboration meeting in Montpellier in September. The analysis results for the SNR W49B are nicely agreeing as can be seen from the following table:

Source	Parameter	gtlike	ctlike
W49B	N_0 at 0.3 GeV $[10^{-10}]$	2.87 ± 0.02	2.85 ± 0.04
	α	1.98 ± 0.03	1.98 ± 0.13
	β	0.069 ± 0.008	0.067 ± 0.003
Galactic diffuse	N_0 at 1 MeV	1.102 ± 0.003	1.097 ± 0.005
	γ	$-(0.0172 \pm 0.0008)$	$-(0.022 \pm 0.001)$
Isotropic	N_0	0.37 ± 0.03	0.36 ± 0.04

Table A.2.: Cross-check between *Fermi Science Tools* and *ctools*, using 5 years of *Fermi*-LAT data of W49B. The units of N_0 are: $\mathrm{cm}^{-2}\ \mathrm{s}^{-1}\ \mathrm{MeV}^{-1}$.

#2 - 10/16/2014 11:55 AM - Schulz Anneli

- File p7rep_cross_check.png added

#3 - 10/16/2014 11:56 AM - Schulz Anneli

- File 20140827_aschulz_gammalibctools.pdf added

The slides are also attached here.

#4 - 10/29/2015 12:56 AM - Knödlseder Jürgen

- Target version changed from 1.0.0 to Release 1.0 paper

#5 - 02/08/2016 10:14 PM - Knödlseder Jürgen

- Status changed from New to Closed

- Remaining (hours) set to 0.0

Files

p7rep_cross_check.png	51.1 KB	10/16/2014	Schulz Anneli
20140827_aschulz_gammalibctools.pdf	2.29 MB	10/16/2014	Schulz Anneli