

GammaLib - Bug #1135

Prefactor of GModelSpatialDiffuseMap is ignored in Monte Carlo simulation

02/06/2014 09:13 PM - Knödlseeder Jürgen

Status:	Closed	Start date:	02/06/2014
Priority:	Normal	Due date:	
Assigned To:	Knödlseeder Jürgen	% Done:	100%
Category:		Estimated time:	0.00 hour
Target version:	1.0.0		
Description			
The prefactor of the GModelSpatialDiffuseMap model is ignored in Monte Carlo simulations. This comes from the fact that a spatial model is assumed to integrate to unity.			

History

#1 - 02/17/2014 10:10 PM - Knödlseeder Jürgen

- Target version set to 00-08-02

#2 - 02/20/2014 09:38 AM - Knödlseeder Jürgen

- Status changed from New to In Progress
- Assigned To set to Knödlseeder Jürgen
- % Done changed from 0 to 50

Added norm() method to the abstract GModelSpatial interface and use this method to determine the event rate in GModelSky::mc method.

Existing unit tests all succeed, now need to check whether changing the normalization actually correctly changes the MC sample. Do this best using pull distributions.

#3 - 07/19/2014 02:05 AM - Knödlseeder Jürgen

- Target version changed from 00-08-02 to 00-09-00

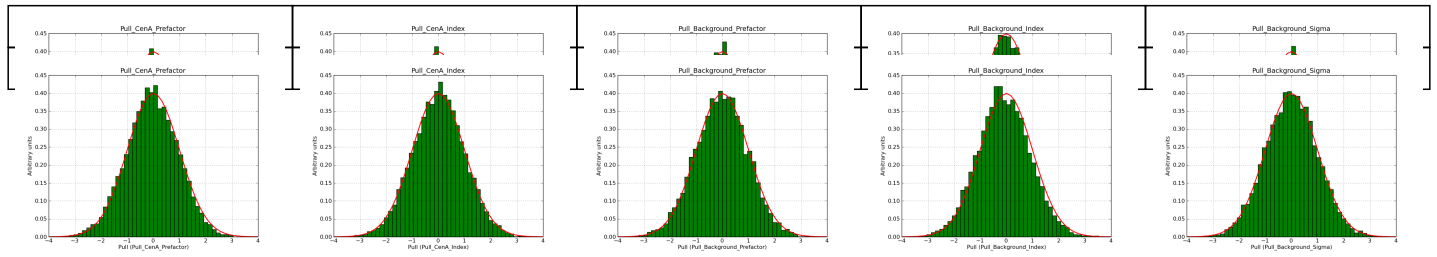
#4 - 11/11/2014 11:27 PM - Knödlseeder Jürgen

- Target version changed from 00-09-00 to 1.0.0

#5 - 02/26/2015 05:34 PM - Knödlseeder Jürgen

- File norm1_iter8_prefactor.png added
- File norm1_iter8_index.png added
- File norm1_iter8_bgd_prefactor.png added
- File norm1_iter8_bgd_index.png added
- File norm1_iter8_bgd_sigma.png added
- File norm3_iter8_prefactor.png added
- File norm3_iter8_index.png added
- File norm3_iter8_bgd_prefactor.png added
- File norm3_iter8_bgd_index.png added
- File norm3_iter8_bgd_sigma.png added
- Status changed from In Progress to Closed
- % Done changed from 50 to 100

I checked the implementation of the MC normalisation using pull distributions of Cen A. The top row gives result for a normalisation of 1, the bottom row for a normalisation of 3. Everything looks ok now.



Files

norm1_iter8_prefactor.png	45.2 KB	02/26/2015	Knödseder Jürgen
norm1_iter8_index.png	43.9 KB	02/26/2015	Knödseder Jürgen
norm1_iter8_bgd_prefactor.png	46.9 KB	02/26/2015	Knödseder Jürgen
norm1_iter8_bgd_index.png	45.9 KB	02/26/2015	Knödseder Jürgen
norm1_iter8_bgd_sigma.png	46.4 KB	02/26/2015	Knödseder Jürgen
norm3_iter8_prefactor.png	45 KB	02/26/2015	Knödseder Jürgen
norm3_iter8_index.png	43.9 KB	02/26/2015	Knödseder Jürgen
norm3_iter8_bgd_prefactor.png	46.8 KB	02/26/2015	Knödseder Jürgen
norm3_iter8_bgd_index.png	45.8 KB	02/26/2015	Knödseder Jürgen
norm3_iter8_bgd_sigma.png	46.4 KB	02/26/2015	Knödseder Jürgen