

GammaLib - Action #758

Feature # 754 (Closed): Allow fitting of elliptical morphology shapes

Adapt GResponse to support elliptical models

02/16/2013 10:20 PM - Knödseder Jürgen

Status:	Closed	Start date:	02/16/2013
Priority:	Normal	Due date:	
Assigned To:	Knödseder Jürgen	% Done:	100%
Category:		Estimated time:	0.00 hour
Target version:	1.0.0		

Description

So far, GResponse only handles point sources, radial models and diffuse models. The following mapping exists:

- Spatial models of type GModelSpatialPsrc call GResponse::irf_psrc and GResponse::npred_psrc
- Spatial models of type GModelRadial call GResponse::irf_extended and GResponse::npred_extended
- All other models call GResponse::irf_diffuse and GResponse::npred_diffuse

To accomodate for elliptical models, a more direct mapping should be implemented:

- GModelSpatialPsrc: call GResponse::irf_psrc and GResponse::npred_psrc
- GModelRadial: call GResponse::irf_radial and GResponse::npred_radial
- GModelElliptical: call GResponse::irf_elliptical and GResponse::npred_elliptical
- All other models call GResponse::irf_diffuse and GResponse::npred_diffuse

Since this implies an interface change, all derived response classes need also to be adapted.

History

#1 - 02/16/2013 10:22 PM - Knödseder Jürgen

- Subject changed from Implement elliptical models in GResponse to Adapt GResponse to support elliptical models

- Description updated

#2 - 02/17/2013 09:31 AM - Knödseder Jürgen

- Target version set to HESS sprint #1

#3 - 02/18/2013 09:41 AM - Knödseder Jürgen

- Status changed from New to In Progress

- Assigned To set to Knödseder Jürgen

Start implementation.

#4 - 02/18/2013 10:22 AM - Knödseder Jürgen

- % Done changed from 0 to 50

The new spatial model organization is now supported. We still need to implement a default method for npred_elliptical.

#5 - 02/18/2013 10:39 AM - Knödseder Jürgen

- Status changed from In Progress to Feedback

- % Done changed from 50 to 100

- Remaining (hours) set to 0.0

Implement GResponse::npred_elliptical, not tested.

I'm not sure if this method is really useful as no ROI handling is implemented here. Maybe all integration methods should be removed from GResponse as they do not seem to be really useful. Alternatively, one may think about modifying the methods to take into account the ROI.

See #766.

#6 - 05/15/2013 09:27 AM - Knödseder Jürgen

- Target version changed from HESS sprint #1 to 00-08-00

#7 - 12/03/2013 09:59 AM - Knödseder Jürgen

- Status changed from Feedback to Closed

- Estimated time set to 0.00

#8 - 12/10/2013 12:19 AM - Knödseder Jürgen

- Target version deleted (00-08-00)

#9 - 07/11/2014 04:12 PM - Knödseder Jürgen

- Target version set to 1.0.0