

GammaLib - Action #3557

Implement BGDPIX algorithm at GCOMObservation level

03/02/2021 04:48 PM - Knödseder Jürgen

<b>Status:</b>	Closed	<b>Start date:</b>	03/02/2021
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assigned To:</b>	Knödseder Jürgen	<b>% Done:</b>	100%
<b>Category:</b>		<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>	2.0.0		
<b>Description</b>			
The BGDPIX algorithm should be implemented at the level of the GCOMObservation class so that the algorithm can be embedded in a maximum likelihood fitting procedure. A method			
GCOMObservation::compute_drb(const std::string& method, const int& nrunav=3, const int& navgr=3, const int& nincl=13, const int& nexcl=0)			
should be added that computes the background using various methods. As methods, PHINOR and BGDPIX should be supported.			

History

#1 - 03/03/2021 05:48 PM - Knödseder Jürgen

- Status changed from New to In Progress
- Assigned To set to Knödseder Jürgen
- Target version set to 2.0.0
- % Done changed from 0 to 20

I started to implement the method with the following interface:

```
void GCOMObservation::compute_drb(const std::string& method,
                                   const GCOMDri&   drm,
                                   const int&        nrunav,
                                   const int&        navgr,
                                   const int&        nincl,
                                   const int&        nexcl)
```

So far the method PHINOR is implemented.

#2 - 03/03/2021 10:40 PM - Knödseder Jürgen

- Status changed from In Progress to Pull request
- % Done changed from 20 to 90

I now also implemented the BGDPIX method, which is considerably faster than comobsback.py. I cross-checked that the same background model is obtained as with comobsback.py.

**#3 - 03/04/2021 07:34 AM - Knödseder Jürgen**

- % Done changed from 90 to 100

Merged into devel.

**#4 - 03/04/2021 07:35 AM - Knödseder Jürgen**

- Status changed from Pull request to Closed