

## GammaLib - Bug #4461

### Correct GSkyRegionRectangle::compute\_solid\_angle

12/06/2023 04:28 PM - Knödseder Jürgen

<b>Status:</b>	Closed	<b>Start date:</b>	12/06/2023
<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>	2.1.0		

#### Description

The solid angle in GSkyRegionRectangle::compute\_solid\_angle is currently computed using

```
m_solid = m_width * m_height * gmmalib::deg2rad * gmmalib::deg2rad;
```

which is not correct on the sphere. The correct formula is

```
m_solid = m_width * gmmalib::deg2rad * 2.0 * sin(0.5 * m_height * gmmalib::deg2rad);
```

#### History

##### #1 - 12/06/2023 09:24 PM - Knödseder Jürgen

- Status changed from New to Closed

- % Done changed from 0 to 100

Merged into devel.