GammaLib - Bug #4461

Correct GSkyRegionRectangle::compute_solid_angle

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

Status:	Closed	**Start date:**	12/06/2023
Priority:	Normal	**Due date:**	
Assigned To:	Knödlseder Jürgen	**% Done:**	100%
Category:		**Estimated time:**	0.00 hour
Target version:	2.1.0		

Description

The solid angle in GSkyRegionRectangle::compute_solid_angle is currently computed using

m_solid = m_width * m_height * gammalib::deg2rad * gammalib::deg2rad;

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

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

History

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

- Status changed from New to Closed

- % Done changed from 0 to 100

Merged into devel.