GammaLib - Feature #1747

GModel for Gamma Ray Spectrum from Dark Matter

03/17/2016 12:02 PM - Rodriguez Fernandez Gonzalo

Status:	New		**Start date:**	03/17/2016
Priority:	Normal		**Due date:**	
Assigned To:			**% Done:**	0%
Category:			**Estimated time:**	0.00 hour
Target version:				

Description

Following the feature #1520, from Nathan, (GModels for Dark Matter Halo Density Profiles). I would suggest to add the gamma ray spectra for dark matter, because it is not easy to model with the current functions used in gammalib.

I would like to suggest the solution adopted by the Fermi collaboration in their science tools. They use the DMFit tool to calculated the gamma spectrum, then from a xml file they just model the spectrum using 4 parameters, normalization, channel, branching ratio and mass.

From M.Cirelli et al I have used their Mathematica notebook to create the ASCII file for different wimp mass and annihilation channels for the CTA energy range.

Cheers,
Gonzalo.

Files

gammamc_dif.dat	914 KB	03/17/2016	Rodriguez Fernandez Gonzalo
test.py	1.89 KB	03/17/2016	Rodriguez Fernandez Gonzalo