GammaLib - Action #1300

Add pre-computation cache to GModelSpatialRadialGauss

07/26/2014 12:33 AM - Knödlseder Jürgen

Status:	Closed	**Start date:**	07/26/2014
Priority:	Normal	**Due date:**	
Assigned To:	Knödlseder Jürgen	**% Done:**	100%
Category:		**Estimated time:**	0.00 hour
Target version:	2.0.0		

Description

I recognized that GModelSpatialRadialGauss has no pre-computation cache. A bunch of multiplications and one division can be saved when all sigma related stuff is cached, which then would be only recomputed when the sigma value changes.

History

#1 - 10/30/2014 12:14 AM - Knödlseder Jürgen

- *Description updated*

#2 - 07/08/2019 10:55 AM - Knödlseder Jürgen

- *Target version set to 1.7.0*

#3 - 07/09/2020 03:20 PM - Knödlseder Jürgen

Moved issue to next release.

#4 - 07/09/2020 03:21 PM - Knödlseder Jürgen

- *Target version changed from 1.7.0 to 2.0.0*

#5 - 10/21/2020 10:23 AM - Knödlseder Jürgen

- *Status changed from New to In Progress*

- *Assigned To set to Knödlseder Jürgen*

- *% Done changed from 0 to 50*

I implemented caching. The tables below compare the performance before and after implementation of the caching. The speed-up is negligible.

Before caching:

Model	CPU_r	Iter_r	logL_r	CPU_n	Iter_n	logL_n	Speed-up	Comments
Gaussian	307.80	2	118106.615	16.55	2	118106.615	18.6	identical results

After caching:

Model	CPU_r	Iter_r	logL_r	CPU_n	Iter_n	logL_n	Speed-up	Comments
Gaussian	307.80	2	118106.615	16.28	2	118106.615	18.9	identical results

#6 - 10/21/2020 12:55 PM - Knödlseder Jürgen

- *Status changed from In Progress to Closed*

- *% Done changed from 50 to 100*

Code merged into devel.