Analysis - Feature #1600

Analytical form for transfer matrix in transverse coordinates, arbitrary magnetic field

16 December 2014 13:41 - Rogers, Chris

Status:	Closed	**Start date:**	16 December 2014
Priority:	Normal	**Due date:**	
Assignee:	Rogers, Chris	**% Done:**	100%
Category:		**Estimated time:**	0.00 hour
Target version:			

Description

attached...

History

#1 - 05 January 2015 16:02 - Rogers, Chris

- Status changed from Open to Closed

- % Done changed from 0 to 100

#2 - 27 August 2015 17:29 - Rogers, Chris

- File 2015-08-27_17.25.44.jpg added

- File 2015-08-27_17.25.52.jpg added

- File 2015-08-27_17.26.05.jpg added

Notes on error propagation through fields; these precede the notes above.

#3 - 04 September 2015 17:26 - Rogers, Chris

Note that in "propagation of errors" note number 2:

- (page 1) I have used the Einstein summation notation when I do the Taylor series expansion
- (page 2) D matrix is the matrix with elements <du_i du_j>

#4 - 27 January 2016 16:38 - Rogers, Chris

I noticed that the 1/pz term for t vs E in 2014-12-16_13.35.00.jpg should be *1/(pz beta^2 gamma ^2)*. *1/pz* is the absolute value, not the derivative.

#5 - 01 February 2016 10:16 - Rogers, Chris

I note I dropped a factor 1/pz in the bottom left hand square of M_d in http://micewww.pp.rl.ac.uk/attachments/3173/2014-12-16_13.35.00.jpg

So elements m_31, m_32, m_41, m_42 (indexing from 1 through 4).

#6 - 25 February 2016 10:17 - Rogers, Chris

- File 2016-02-25_10.12.27.jpg added

Also correction to the 0, 1, 2 row in 2016-02-25 10.12.27.jpg ; I am checking everything against numerical derivatives, a few more errors to fix...

#7 - 25 February 2016 11:53 - Rogers, Chris

- File 2016-02-25_11.50.14.jpg added

- File 2016-02-25_11.50.30.jpg added

Updated equations for px, py

Files

2014-12-16_13.34.24.jpg	1.09 MB	16 December 2014	Rogers, Chris
2014-12-16_13.34.41.jpg	1.06 MB	16 December 2014	Rogers, Chris
2014-12-16_13.34.51.jpg	1.08 MB	16 December 2014	Rogers, Chris
2014-12-16_13.35.00.jpg	1.08 MB	16 December 2014	Rogers, Chris

2014-12-16_13.37.17.jpg	1.01 MB	16 December 2014	Rogers, Chris
2015-08-27_17.25.44.jpg	1.16 MB	27 August 2015	Rogers, Chris
2015-08-27_17.25.52.jpg	1.12 MB	27 August 2015	Rogers, Chris
2015-08-27_17.26.05.jpg	1.05 MB	27 August 2015	Rogers, Chris
2016-02-25_10.12.27.jpg	1.1 MB	25 February 2016	Rogers, Chris
2016-02-25_11.50.14.jpg	1.04 MB	25 February 2016	Rogers, Chris
2016-02-25_11.50.30.jpg	1.03 MB	25 February 2016	Rogers, Chris