Open Letter to the Editorial Board of "European Physical Journal C"

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Concern: Incorrect Erratum EPJC71(2011)1718 to the article EPJC60(2009)543

Dear Editors of EPJC,

I am writing because of a problem related to the following article:

"Revisiting the Global Electroweak Fit of the Standard Model and Beyond with Gfitter"

The article is authored by: Henning Flächer (CERN), Martin Goebel (DESY & Hamburg U.), Johannes Haller (Hamburg U.), Andreas Hoecker (CERN), Klaus Mönig (DESY, Zeuthen), Jörg Stelzer (DESY) The corresponding author is Dr. A. Hoecker, CERN.

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CERN-OPEN-2008-024, DESY-08-160 e-Print: <u>arXiv:0811.0009</u> [hep-ph]

The problem:

The autors of the article introduce and apply the project Gfitter, aiming at global fits to elementary particle physics measurements in the Standard Model and beyond.

They do not mention two important facts which ZFITTER detected in March 2011:

1.

The C++ - Software Gfitter, subpackage Gfitter/GSM, was created by intensive use of the Fortran Software ZFITTER v.6.42. For ZFITTER, see <u>http://zfitter.com</u>.

Applying different methods of search, we identified about 175 Fortran/C++ statements of different length and complexity which have been "translated" and "integrated".

Gfitter/GSM is the Standard Model library of Gfitter and represents the heart of the project from a physics point of view and is a crucial basis of the article.

2.

Further, about 5 pages of text of the article rely on texts due to ZFITTER authors.

The "integrations" of both software and text have been performed by non-authorized hidden copy-pasteadapt.

For more factual details see:

- <u>gfitter-uses-175-functions-of-zfitter.txt</u> List of the known 'integrations' from ZFITTER v.6.42 into Gfitter/gsm, file status 10 May 2011.
- <u>Zfitter-code-in-gfitter.html</u> Samples of the `integration' of ZFITTER software in Gfitter/GSM software, file created 03. Aug 2011.

- <u>gfitter-gsm-patches.html</u> Patches of misprints arising from the `integrations', file created 28 Oct 2011.
- <u>gfitter-publications.html</u> Informations on publications of Gfitter where the use of ZFITTER software is not quoted, file created 10 August 2011. Last update 26 August 2012 by adding several Items.
- <u>zfitter-text-in-gfitter-publications.html</u> Samples of [latex source] text, found in the main Gfitter publication and also in a diploma thesis, taken from latex source files written by ZFITTER authors, file created 24 Oct 2011.

There is also an internet blog in German language, GfitterPlag, <u>http://gfitterplag.blogspot.com</u>, under responsibility of the "Ethics Group of Brandenburg Gymnasiasts" which comments the situation with an artistic, journalistic, ethical, also polemic component.

My further correspondence, since April 2011, was mainly with the Editor-in-Chief Professor S. Bethke and with the Publishing Editor C. Caron.

We described our findings in detail to the Editor-in-Chief Professor S. Bethke since September 2011 and demanded in a letter dated 23 December 2011 that the article gets retracted.

This would have been along the lines of editing at Springer Verlag, as described e.g. in the document of Springer Verlag dated in 2010:

http://www.springer.com/cda/content/document/cda_downloaddocument/Policy_on_Publishing_Integrity201 0.pdf?SGWID=0-0-45-784498-0, hold at http://www.springer.com/?SGWID=0-102-2-1145421-0&changeHeader.

One might also refer to the compliance statement of EPJC in the instructions for authors, see section "Good scientific practice in publishing, Concluding remarks", at <u>http://www.epj.org/guidelines_epjc.html</u>: "Major learned societies in the physical sciences worldwide offer further, more detailed statements regarding good scientific practice in research and publishing on their homepages. EPJ does not endorse any particular statement but reserves the right to refer to and use such documents at its discretion when handling cases not covered by the statements made above."

For Germany, this includes e.g. the recommendations of Deutsche Forschungsgemeinschaft for "Good Scientific Practice"

http://www.dfg.de/download/pdf/dfg_im_profil/reden_stellungnahmen/download/empfehlung_wiss_praxis_ 0198.pdf made available at http://www.dfg.de/foerderung/rechtliche_rahmenbedingungen/gwp/index.html. In Great Britain, see the commentary given in

https://workspace.imperial.ac.uk/library/Public/Plagiarism_detection_by_publishers.pdf .

The complaint was not successful, the arguing by the Editors-in-Chief was careful, but quite strange, and an appeal was not allowed.

Document: See the letter written by Professor S. Bethke and Professor G. Isidori, dated 26 January 2012: <u>https://docs.google.com/file/d/0B_sXq0RF9vRVc3FDbU5aOG1RUXM/edit</u>.

We consider the outcome to be a scandal, but understand that we cannot appeal.

The Erratum EPJC71(2011)1718:

The authors of EPJC60(2009)543 submitted in July 2011, as a result of negotiations with ZFITTER, an Erratum, published in August 2011 as EPJC71(2011)1718.

This Erratum contains the following statements concerning the relation of Gfitter and ZFITTER. *We quote from there:*

 \dots We emphasise in particular the use of ZFITTER implementations [1, 2] for the calculation of the partial and total widths of the Z and of the total width of the W boson.

... Replacement of the sixth sentence in the fourth paragraph in Sect. 1 "Introduction" The sentence should be replaced by "The calculations of the partial and total widths of the Z and of the total width of the W boson have been integrated from the ZFITTER package [1, 2] into the Gfitter subpackage GSM and are co-authored by both groups [3].1 1Usage and citation of the Gfitter subpackage GSM should include a citation of the ZFITTER package [1, 2].

... Replacement of the first three sentences in Sect. A.3 "Electroweak form factors" The sentences should be replaced

by "The electroweak form factors for lepton or quark flavours f, ρ fZ and κ fZ, absorbing the radiative corrections, are used in the Gfitter software for the calculation of the partial and total widths of the Z boson and of the total width of the W boson. The relevant implementations have been integrated from the ZFITTER package [1, 2] (cf. Footnote 1) and are co-authored by both groups [3].

... Replacement of the third sentence in Sect. A.4 "Radiator functions" The sentence should be replaced by "The following formulae as implemented in the Gfitter subpackage GSM are taken from [13] and the ZFITTER package [1, 2] (cf. Footnote 1). The relevant implementations are coauthored by both groups [3]."

... References

1. A.B. Arbuzov et al., Comput. Phys. Commun. 174, 728 (2006). hep-ph/0507146, http://zfitter.desy.de

2. D.Y. Bardin et al., Comput. Phys. Commun. 133, 229 (2001). hep-ph/9908433, http://zfitter.desy.de

3. A. Akhundov, A. Arbuzov, M. Awramik, D. Bardin, M. Bilenky, P. Christova, M. Czakon, O. Fedorenko, A. Freitas, M. Goebel,

M. Gruenewald, J. Haller, A. Hoecker, L. Kalinovskaya, K. Moenig, A. Olchevsky, S. Riemann, T. Riemann, Gfitter/GSM sub-package, public release in preparation

End of quotation.

We have to inform the Editorial Board of EPJC on the fact that the "Gfitter/GSM sub-package" with authors A. Arbuzov et al. did not exist at the moment of submission of the Erratum, never existed, and will not exist.

The Erratum contains several statements and omissions; even when they are indirect, they are quite evident:

- The authors of the Gfitter/GSM software, at the moment of submission of EPJC60(2009)543, were the following persons: M. Goebel, J. Haller, A. Hoecker, K. Mönig.
- There is no clarifying statement on the "integration" of about 5 pages of text authored by D. Bardin, L. Kalinovskaya, S. Riemann, T. Riemann into EPJC60(2009)543.
- There are explicit statements on the relation between ZFITTER and Gfitter codes. Evidently, there is so much ZFITTER code in Gfitter that the authors of Gfitter and of EPJC60(2009)543 decided to clarify this. **But what they write is not correct:** They say that the "integration" of ZFITTER parts into Gfitter has been made by a common package, authored by representatives of the two collaborations.

30 Jan. to 1 Feb. 2012, we discussed the situation in the group of the main long-term authors of ZFITTER: A. Akhundov, A. Arbuzov, D. Bardin, P. Christova, L. Kalinovskaya, A. Olshevsky, S. Riemann, T. Riemann. As a result, I got written procuration from all these ZFITTER authors to inform EPJC on the fact that we all consider the Erratum as not appropriate and that it has to be retracted or essentially revised.

I informed the Editor-in-Chief Professor S. Bethke for EPJC and Dr. K. Moenig for Gfitter on our position and expectation.

See: Letter http://zfitter.com/2012-02-02-letter-to-Springer-Moenig.pdf dated 2 February 2012.

We got no answer.

In that situation we decided to wait for the Arbitration Award (Schiedsspruch) by the Ombudsman for Science in Germany, Professor W. Loewer, who was confronted with the Gfitter case in November 2011 due to an appeal by Professor H. Dosch, DESY. ZFITTER got the opportunity to explained its position, too. After a series of meetings on 26 June 2012 Professor Loewer formulated his Arbitration Award dated 3 July 2012. He expects that the Arbitration Award will get public by its realization. We are yet looking forward to that. Once Professor Loewer did not consider carefully the situation around the Erratum we take the freedom to repeat our demand to the Editorial Board of EPJC:

We expect that the Erratum EPJC71(2011)1718 gets reconsidered by the Editorial Board and as a result of this it should get retracted.

Finally, we would like to make the following statement. We are impressed by the editorial work related to another Gfitter article, which was submitted to EPJC and pre-published in the arXiv as

http://arxiv.org/abs/1107.0975v1:

"Updated Status of the Global Electroweak Fit and Constraints on New Physics", by

M. Baak, M. Goebel, J. Haller, A. Hoecker, D. Ludwig, K. Moenig, M. Schott, J. Stelzer.

That article was submitted to EPJC on 5 July 2011, but did never appear. This is delicate because it was accepted for publication by EPJC on 12 Sep 2011. This is known due to a private information from A. Hoecker, the corresponding author, dated 20 Sep 2011; see <u>http://zfitter.com/gfitter-publications.html</u>.

A completely new version of the study with same title was published half a year later as EPJC72(2012)2003, see <u>http://dx.doi.org/10.1140/epjc/s10052-012-2003-4</u>.

We read there:

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The only rational conclusion is:

The submission of 1107.0975v1 was, after acceptance, retracted, and a new, independent submission of an article was accepted.

In fact, the second version of the submission to hep-ph is: [v2] Tue, 11 Sep 2012 14:18:50 GMT (888kb) So, it was submitted to hep-ph after publication of EPJC72(2012)2003.

The difference of hep-ph/1107.0975v1, retracted at EPJC, and of EPJC72(2012)2003 is that the latter does not rely on the Gfitter/GSM software we are discussing here. The former does.

The conclusion which we would like to draw from this observation, if the Editorial Board would allow us, is the following:

For a retraction of EPJC60(2009)543 there are two, more stringent, reasons compared to the retraction of hep-ph/1107.0975v1.

Namely:

- EPJC60(2009)543 does not only *use* Gfitter with non-quoted "integrations" from ZFITTER, but it also *introduces and describes* the Gfitter software; it is considered by both the authors and the community as the standard reference for and main publication of the Gfitter project.
- EPJC60(2009)543 contains, contrasting hep-ph/1107.0975v1, about 5 pages of non-quoted "integrations" of ZFITTER text.

We hope for an answer from the Editorial Board of EPJC which covers our request in a fair way.

The Gfitter case is of a general importance.

Many collegues of us expect that the major scientific journals for the publication of research in the field of elementary particle physics, among them EPJC, take an active position in favor of ethically and legally responsible, fair interaction of all researchers, collaborations, research organizations, editors, publishers.

Let us mention here that the ZFITTER authors have legal rights with their program and texts (following national laws), and that the ZFITTER software is under the old-fashioned, but reasonable CPC software licence, <u>http://cpc.cs.qub.ac.uk/summaries/ADMJ_v2_0.html</u>, which is hold by the authors and also has to be respected by all users of ZFITTER.

The Gfitter authors were asked several times to do so. They make no statement.

It is a valuable tradition and substantial part of our common culture to respect both the legal and licencing regulations in scientific basic research in the interest of not only the scientists, but also in the interests of research centers like CERN, DESY, JINR, the universities, national academies, publishers, editors, funding agencies, etc.

The Editorial Board of "European Physical Journal C" is requested to find a positioning.

Tord Riemann, spokesperson of ZFITTER