

We thank the Editor-in-Chief for organizing the review for our submission. We also thank the anonymous reviewers for their suggestions. Our manuscript and package have greatly improved as a result of your helpful comments. We have carefully followed the reviewers’s comments and prepared a revision in this submission. The detailed point-to-point comments are addressed below. We hope that the Editor-in-Chief and the anonymous reviewers find this revision satisfactory.

Responses to reviewer 1

Assessment: Most of my suggestions from the previous round have been satisfactorily implemented. However, some have not. My advise to the Editor(s), therefore, is “revise-and-resubmit” paying attention to my comments below. There are also several typos that should be rectified, see “Comments”. In addition, the English can be improved notably throughout. I recommend the authors to contract a professional proof-reader, or to ask someone whose first language is English to carefully proof-read the manuscript.

The manuscript has now been proofread by a professional native English speaker. Next, we enumerate the comments made by the reviewer and how these have been addressed in the revised version of the paper.

1. **Introduction, 1st. paragraph.** Remove “(???)” Done.
2. **Introduction, 3rd. paragraph:** “and so, the rest ...” Here something is missing, but it is not clear what. **Re-phrase?** We havéd rephrased the sentence. We hope it is now clearer.
3. **Introduction, 4th. paragraph:** “...supposed an alternative ...”. Should be “proposed an alternative”? **Please re-phrase.** Yes, you are right. We have replaced “supposed” by “provided” (instead of “proposed”).
4. **In the previous round of review I said:**

“In the conclusions, it is stated very clearly that DGLMExtPois is ‘the only package on CRAN that allows fitting count data using the hyper-Poisson model’. I think it would be useful to state this equally clear in the survey of currently available approaches.”

This has not been done. To include such a sentence in the new section 5 is not optimal. It would be much more useful if it were stated in the introduction. In that way potential users obtain an idea of what the package offers beyond those that are already available at an early stage. Now we have stated clearly in the introduction that **DGLMExtPois** is the only package on CRAN that allows fitting count data using the hyper-Poisson model. This is stated in the first sentence of subsection “Comparison with other packages”, which is included in the introduction.

5. **Section 4, “Comparison with other packages”.** I think it would be much better if this comparison were incorporated into the introduction, for example in paragraphs 4 and 5. Again, in this way potential users obtain an idea of what the package offers beyond those that are already available at an early stage. Moreover, would it make sense to include the base function `glm()` as part of the comparison in the table? And what about the standard Poisson model? Presumably all the considered packages can estimate the standard Poisson model, right? And is there a typo prior to the table?: “Table ??” Finally, consider also modifying the beginning of the caption of the table by adding the word “Feature”, so that it goes “Feature comparison between packages...etc.” The “Comparison with other packages” subsection has been moved to the introduction, as suggested by the reviewer. With respect to the *glm* function, this function does not estimate any of the models analyzed in the paper, so, from our point of view, it does not make sense to include it in the comparison. About the standard Poisson model, no one of the packages analyzed in the comparison estimates this model, that is why it has not been included in the comparison. The English native who corrected the manuscript has not found any typo, apart from the error in the reference. The caption has been modified adding “Feature”.
6. **P. 7: There appears to be several problems with the references, since there are several ??.** Corrected.
7. **P. 9: The reference to Table 3 should be Table 4?** Yes, it has been corrected.
8. **P. 11: Rectify the instances of “Table ??”** Done.
9. **P. 12: Rectify the instance of “Table ??”** Done.

We would like to apologize for the problems with the references. Everything was working fine, but there must have been an error in the last compilation.

Responses to reviewer 2

I’ve read through the authors’ response and think most of it seems fine.

One concern I still have, is that the code seems pretty poorly covered by unit tests, and that they don’t use a tool like Codecov to actually measure the coverage. Neither is there any continuous integration in their GitHub repository. I don’t know how important this is with respect to the publishing of this paper, however. Otherwise my points seem to be properly addressed. We have updated the GitHub repository whenever we have added significant code to the package. We know we could update the GitHub repository more frequently, but, at the moment, not all of the package developers are proficient in GitHub. To improve continuous integration with GitHub we have used GitHub Actions in the new release of the package (0.2.1), now every time we push to GitHub the package is checked. With respect to the unit tests, we have used `testthat` (as suggested by the reviewer) to incorporate unit tests. It is true that in the previous revision we had

no time to develop a lot of tests. For this new revision we have added more unit tests that cover a large part of the package code, these unit tests are included in the new release of the package (0.2.1).

Btw, I also note that the first reference on page 1 of the paper is “(??)”, so something is missing there. Done.