

Dear Anna and co-authors,

many thanks for addressing the referee comments and my editorial remarks mostly. It seems, however, that you have missed some suggestions (1, 2) and I would like to ask you to including the DOI of the kp index instead of an outdated URL (3).

(1)

Unfortunately, data availability section still seems unchanged for me. Due to the versioning workflow of Zenodo that provides prominent links to all versions of a data via the Zenodo DOI Landing Page, there is no need to provide all four DOIs (of versions 1 and 2 for the two data sets). Instead, it is fully sufficient to only include the DOIs of version 2 (and reduced potential confusion for the readers). May I please ask you to change the data availability section

From

*“The COI geomagnetic field elements are available via the following addresses: COI original data – XLSX: <https://doi.org/10.5281/zenodo.4122066> (Ribeiro et al., 2020a) and ASCII: <https://doi.org/10.5281/zenodo.4308022> (Ribeiro et al., 2020b); COI homogenized data –XLSX: <https://doi.org/10.5281/zenodo.4122289> (Morozova et al., 2020a) and ASCII: <https://doi.org/10.5281/zenodo.4308036> (Morozova et al., 2020b).”*

To

*“The COI geomagnetic field elements are available (in XLSX and ASCII formats) via the following addresses: COI original data – <https://doi.org/10.5281/zenodo.4122066> (Ribeiro et al., 2020); COI homogenized data – <https://doi.org/10.5281/zenodo.4308036> (Morozova et al., 2020).”*

(2)

Line 486 (manuscript version3): please change “doi:” to <https://doi.org/>”

(3)

line 491: I have seen that you are using the old URL to the kp Index. This URL is still resolving, but only linking to another page. Moreover, the kp Index will be published with a DOI within the next weeks. Even though the DOI of the kp Index is not yet resolving, I would be happy if you (1) included it already in the manuscript and (2) added the following reference to the References section:

Matzka, Jürgen; Bronkalla, Oliver; Tornow, Katrin; Elger, Kirsten; Stolle, Claudia (2021): Geomagnetic Kp index. V. 1.0. GFZ Data Services. <https://doi.org/10.5880/Kp.0001>

The change of the last sentence of the data availability section would then be (lines 491-492)

From

*“The global Kp index can be downloaded from [http://www-app3.gfz-potsdam.de/kp\\_index/index.html](http://www-app3.gfz-potsdam.de/kp_index/index.html) or [http://isgi.cetp.ipsl.fr/des\\_kp\\_ind.html](http://isgi.cetp.ipsl.fr/des_kp_ind.html)”*

to

*“The global Kp index can be downloaded from <https://doi.org/10.5880/Kp.0001> (Matzka et al., 2021, see <https://www.gfz-potsdam.de/kp-index/> for a general overview) or [http://isgi.cetp.ipsl.fr/des\\_kp\\_ind.html](http://isgi.cetp.ipsl.fr/des_kp_ind.html)”*

(I will make sure that the DOI of the Kp index is online when your article will be published)

Many thanks and best regards, Kirsten