

## **Response to referee comments**

**Manuscript title:** Characterization of the South Atlantic Anomaly

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We thank the reviewers and editor for their comments on the manuscript. We have taken into consideration in preparing our revision and made minor amendment/additions of sentences to improve the revised manuscript. All lines and page numbers mentioned are referring to the revised manuscript (Track Changes-Simple Markup).

### **Revised Submission**

(1) **Comments from Referees:** *Page 7, line 5, ' it can interpret as both that ' should be ' it can be interpreted...'*

(2) **Author's response:** We have change it at page 7, line 5.

(3) **Author's changes:** If the Hurst exponent is in the range of  $0.5 < H < 1$ , it can be **interpreted** as both that a high value in the series will probably be followed by another high value also that the values a long time into the future will serve to be high.

(1) **Comments from Referees:** *Page 8, line 8, ' Active period can be define as a day ' should be ' be defined as...'*

(2) **Author's response:** We have change it at page 8, line 8.

(3) **Author's changes:** Active period can be **defined** as a day from 1 UT until 24 UT where the existence of the geomagnetic storm is below – 30 nT.

(1) **Comments from Referees:** *Page 9, line 3, ' The explanation on choosing 11 March 2011 compare to the other date can be explained more detail by ... ' should be ' compared to the other date can be explained in more detail by...'*

(2) **Author's response:** We have change it at page 9, line 3.

(3) **Author's changes:** The explanation on choosing 11 March 2011 **compared** to other date can be explained **in** more detail by referring Fig. 4

(1) **Comments from Referees:** *Page 10, line 4, ' The periodogram is on 03 February 2011 station THL ' should be ' The periodogram is obtained from station THL on 03 February 2011 '.*

(2) **Author's response:** We have change it at page 10, line 7 and line 8.

(3) **Author's changes:** The periodogram **is obtained from station THL on 03 February 2011.**