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Discussions

Interactive comment on "Review "On the relation between the seismic activity and the Hurst exponent of the geomagnetic field at the time of the 2000 Izu swarm"" *by* F. Masci and J. N. Thomas

Anonymous Referee #1

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For review this paper, I have also read the paper: On the relation between the seismic activity and the Hurst exponent of the geomagnetic field at the time of the 2000 Izu swarm. In Figure 1, the swarm of earthquake started on June 26, the D and H components of the geomagnetic field are very coherently with the seismicity activity. It is need to have more evidence to proof that many presumed magnetic seismogenic signatures claimed to be related to the swarm occurred at Izu during 2000 were actually normal magnetospheric disturbances. I would suggest the author to do more work to proof their standpoint.

1. In Figure 1, the seismic activity shows much different before 25/6 and after 25/6, and

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also to the data of the Hurst exponent of geomagnetic field component H (the red line in Figure 1) However, in Figure 2(a)) the 3-day running average of the Hurst exponent of geomagnetic field component H values drop after 5/7. Is it caused by the deficiency data during 1/7∼5/7 in Figure 1? There is a few'zero level' horizontal sections of the records of the Hurst exponent correspond to the intervals when the data were not collected owing to technical reasons

2. In Figure 3, we can find that the most of the discordant data are after 5/7. The authors can try to calculate the correlation coefficient of the Hurst exponent of geomagnetic field component H, (3-day running average, the blue line in Figure 2(a)) with the local seismicity activity M* (3-day running average, the solid line with open squares in Figure 2(a)) for the data during 7/6 to 5/7.

3. It would be also good to consider the D component. I would like to suggest authors also try to calculate the correlation coefficient of the Hurst exponent of geomagnetic field component D, (3-day running average which is the blue line in Figure 2(b)) with the local seismicity activity M* (3-day running average which is the solid line with open squares in Figure 2(b)) for the data from 7/6 to 5/7. To see whether having relation between seismicity activity and the Hurst exponent of the geomagnetic field at the time of the 2000 Izu swarm or not.

4. I would suggest the authors to calculate the PDF of the Hurst exponent of geomagnetic field component H, (the red line in Figure 1) during 7/6 to 25/6 and during 6/28 to 7/30 and remove the deficiency data during 1/7∼5/7. The mean value and variance of the Hurst exponent of the geomagnetic field would be useful to see whether having relation between the change of Hurst exponent of the geomagnetic field and the change of seismicity activity.

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