

## ***Interactive comment on “Phenomena preceding major earthquakes interconnected through a physical model” by Panayiotis A. Varotsos et al.***

**Anonymous Referee #2**

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The article “Phenomena preceding major earthquakes interconnected through a physical model” by Varotsos, Sarlis & Skordas, deals with a very interesting topic. The article provides a short review of the precursors to the M9 Tohoku earthquake that have been reported during a  $\sim 1$  month long time period (22 Dec. 2010 – 23 Jan. 2011), i.e.  $\sim 2.5$  to  $\sim 1.5$  months before the Tohoku earthquake of 11 Mar. 2011 and examines whether these precursors are in agreement with the pressure stimulated polarization currents (PSPC) condensed matter physical model, which has been proposed for the generation of the Seismic Electric Signals (SES). The authors show that all these precursors are directly evidenced from the PSPC model, except probably of the anomalous changes of the level and temperature of confined groundwater.

The article is well written and easy to follow. It offers a novel important unifying view

C1

about a number of multidisciplinary precursory phenomena. Thus, in my opinion, merits publication in Annales Geophysicae. A few minor improvements can be made as follows:

In p.7, line 7, the authors should check whether the subscript “bef” is correct or “aft” should be used instead.

Figure 3 is a very informative figure. However, the authors should be careful so that the text is fairly readable. The second from left text box that appears at the bottom uses too small fonts. In my opinion, the authors should increase the font size at least for the specific text box, or they can try to move part of the text to the figure legend.

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C2