

## ***Interactive comment on “Technical note: On the progress of the 2015–2016 El Niño event” by C. A. Varotsos et al.***

**Anonymous Referee #3**

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The article "Technical note: On the progress of the 2015–2016 El Niño event" by Varotsos et al. explores whether the current El Niño event should be characterized as one of the strongest event on record. The authors analyze the Southern Oscillation Index monthly values by using a recently developed methodology that is based on the estimation of the entropy defined in a new time domain called "natural time" and the application of the "receiver operating characteristics" analysis. They conclude that the El Niño event of 2015–2016 should not be considered as one of the strongest events by comparing also with the very strong events of 1982–1983 and 1997–1998. The paper is well structured and the results are relevant for Atmospheric Chemistry and Physics. I fully agree with the comments published by the other two Referees which the authors should address before publishing this article. I have also one comment which the au-

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thors should consider in their revision of the manuscript. In lines 17-22, Page 35791 the authors compare the variation of the entropy change in natural time under time reversal during the current El Niño event with that during the events of 1982–1983 and 1997–1998 in order to confirm their results. The authors should make their justification more clear or insert more discussion on this point.

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