

Interactive comment on “Random and externally controlled occurrence of Dansgaard-Oeschger events” by Johannes Lohmann and Peter D. Ditlevsen

V. N. Livina (Referee)

vlivina@gmail.com

Received and published: 8 March 2018

The paper by Lohmann and Ditlevsen “Random and externally controlled occurrence of Dansgaard-Oeschger events” investigates possible mechanisms of the paleoclimate variability using several Poisson-process models and discusses the controls of warm and cold periods of the DO sequence in the NGRIP record. The paper is well-written and motivated, with detailed discussion of the models and their statistics, which are illustrated by clear figures. The paper is suitable for publication after a minor revision.

I think all the model parameters and statistics (RMSD, p-values) would be good to summarise in a table, which would help compare models at a glance.

C1

If compare design of figures 2, 4, 6, notations P, E, I, S could be used in the same style, preferably in the label of the Y-axis rather than near the curves (sometimes with pointing lines sometimes without). Blue lines are better to replace by black ones, for better visibility (in my printout they look shaded).

Some text definitions could be accompanied by a suitable formula, see page 5, lines 13-14.

What is the authors' definition of “regularity” in page 4, line 12? Stationarity?

In page 2, line 19, it is better to say “consider” than “regard”. The same in page 3, line 3.

In page 6, line 9, it is better to say “data source” than “archive”.

In page 6, line 23: “as extreme as the observed data” (not “than”)

In page 9, line 17: “it needs not”

In page 9, line 19: “we still think it is”.

Interactive comment on Clim. Past Discuss., <https://doi.org/10.5194/cp-2018-3>, 2018.

C2