

***Interactive comment on “Importance of three-dimensional grids and time-dependent factors for the applications of earthquake forecasting models to subduction environments” by C.-H. Chan***

**C.-H. Chan**

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Dear Sir/Madam,

I appreciate your constructive comments. I quoted those comments, which follow with my responses. All of the changes are marked with underlines in the revised manuscript.

1) explain better how the Molchan diagram computation was done.

I follow this comment and include additional description and explanation for the

C3418

Molchan diagram in Chapter 5.1 (Lines 266-287).

2) Chapter 5.1: check your conclusions with the results show in the figure 8 and 9. I think that there is a misinterpretation of the results. I suggest to read this work: <https://gji.oxfordjournals.org/content/172/2/715.full>

Thanks for the reference. I revised the manuscript and included the null hypothesis test accordingly in Chapter 5.1-5.3.

3) Chapter 5.3 : if you want to talk also about seismic hazard, please show some hazard maps, to check the differences between models and approaches. Or you can delete this part.

The discussion on application to seismic hazard assessment has been removed.

Sincerely yours, Chung-Han Chan, Nanyang Technological University, Singapore, June 2016.

Please also note the supplement to this comment:

<http://www.nat-hazards-earth-syst-sci-discuss.net/3/C3418/2016/nhessd-3-C3418-2016-supplement.pdf>

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Interactive comment on Nat. Hazards Earth Syst. Sci. Discuss., 3, 7527, 2015.

C3419

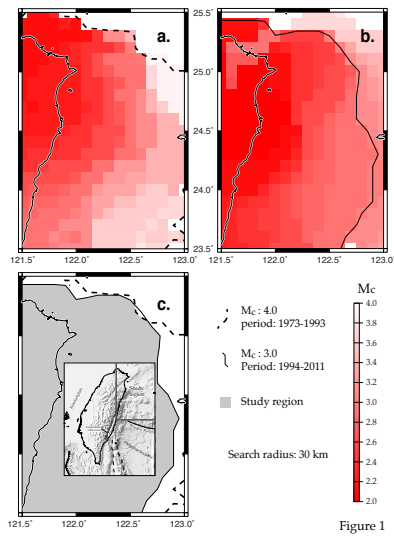


Fig. 1.

C3420

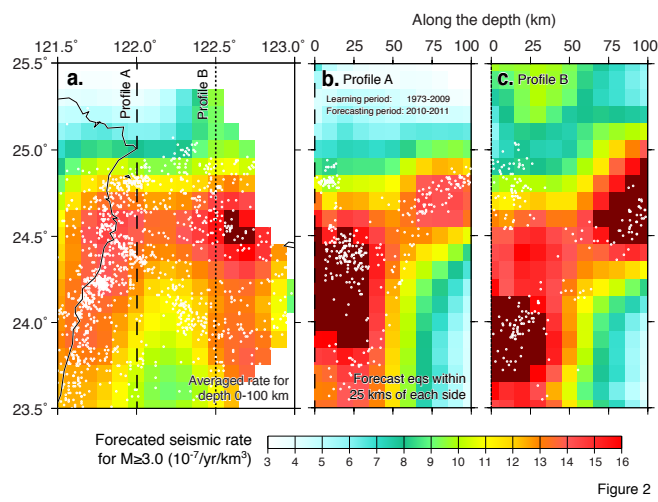


Fig. 2.

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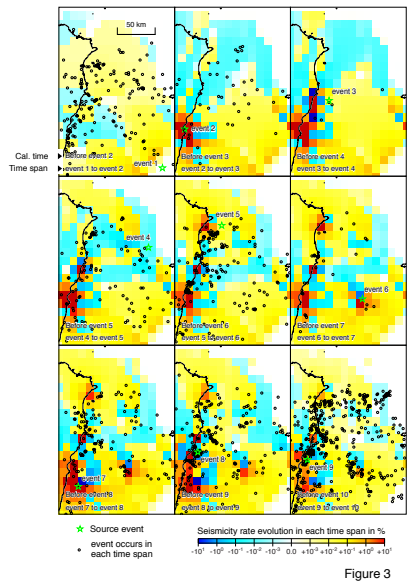


Fig. 3.

C3422

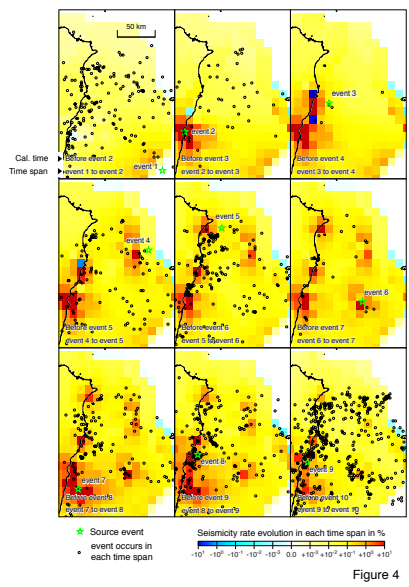


Fig. 4.

C3423

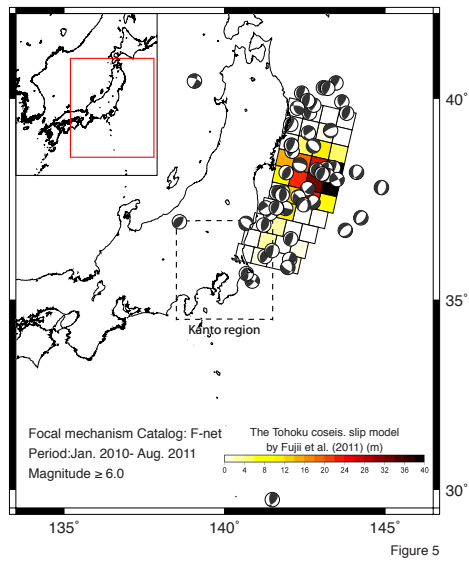


Fig. 5.

C3424

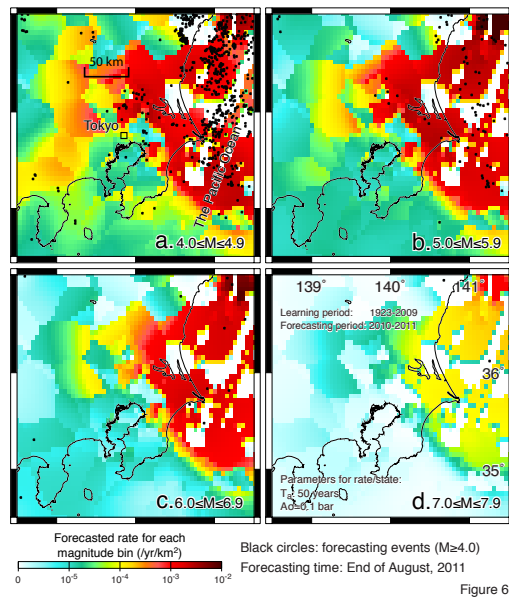


Fig. 6.

C3425

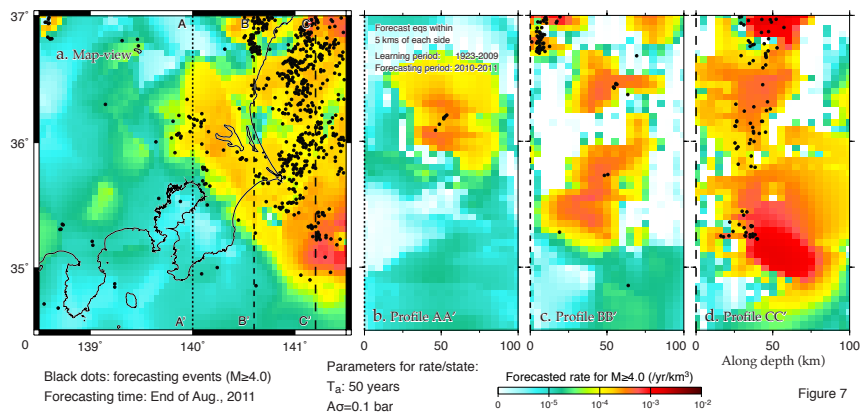


Fig. 7.

C3426

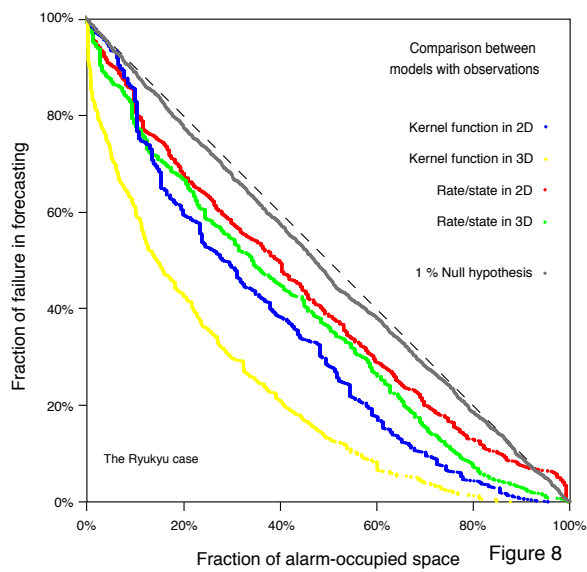


Fig. 8.

C3427

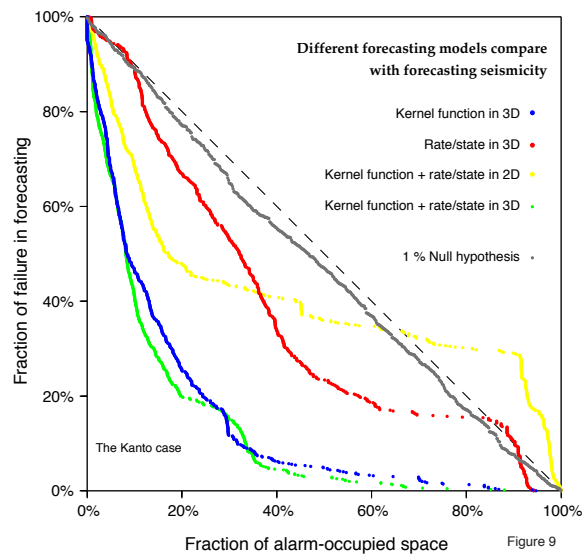


Fig. 9.