Natural Hazards
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Discussions

Interactive comment on "Hazard function theory for nonstationary natural hazards" *by* L. K. Read and R. M. Vogel

Anonymous Referee #2

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REVIEW OF

Hazard function theory for nonstationary natural hazards

by

L. K. Read and R. M. Vogel

GENERAL COMMENTS

In this article the authors propose to extend classical approaches based on peak over threshold (POT) methods and generalized Pareto distribution models to the case of

nonstationary processes modeling natural hazards. The main ingredient is based on the use of the hazard function analysis in order to construct a relation between the exceedance probability of the natural hazard end the time to failure.

The article is clearly written and the bibliographic discussion is very complete.

However there is a point which needs to be clarified before the article can be accepted for publication. The authors indeed extend the relation linking the hazard function $h(t)$ to the exceedance probability p_0 to the nonstationary case by writing:

$$h(t) = p_\tau.$$

This relation has to be justified.

As a minor remark the reviewer thinks that the use of 2 symbols for denoting time, t and τ could be confusing and suggest to drop either one. Moreover, if τ denotes a fixed value of time, relations (1) to (3) page 6890 should be written in terms of τ instead of t.