

Review of: "Seismic intensity measure selection considering Record-to-Record and Angle-to-Angle uncertainties."

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Potential competing interests: No potential competing interests to declare.

The Paper presents an approach to analyze the Efficiency and the Angular Efficiency of different ground motion intensity measures considering the Record-to-Record and Angle-to-Angle variability.

Presenting an analysis of the simultaneous impact of the mentioned uncertainties.

The work is of interest and potentially suitable for publication. However, the manuscript can still be improved, both from a conceptual and formal point of view. In particular, the references to the state of the art are very limited. It should be provided with a broader description of the present development related to the measures of seismic intensity and their variability. Thus, the following remarks should be addressed before full acceptance:

(1) The references should be implemented

In the definition of the state of the art, the references should be implemented, giving the possibility to the reader to better understand the actual research level. In the introduction, defining the PEER framework, the authors affirm that many studies have been carried out without citing references.

Specifically, in the abstract, as well as in the introduction it is cited that "R-to-R variability has been extensively studied" and "the former (n.d.r the R-to-R efficiency) has been extensively studied" but no references have been included to validate the statements.

(2) Lacking of the description of the document's content in the Introduction

The introduction, in its final part, lacks of the outlining of the paper's content. Please add the

structure with a brief description of the content of each chapter.

(3) Check for some grammar error

For instance, in the second row of page 3 in “N_r original record each rotated to N_a rotation angles” the word “record” should be plural as can be understood from the context. It is suggested a revision of the grammar.

(4) Clarification about limit states

In the text is told that three limit states are considered. Firstly, they are not expressly declared and it is not explained the reason for the choice of those specific limit states, then the results presented are related to 2 different cases. In this case, it is suggested to declare which are the limit states used and the reason why the results presented are related to only two limit states.

Some other minor issues:

Table 2, in the PDF version of the document, is unreadable, most of the ground motion intensity measures are not visible.

The MIV and the CAD should be defined in the documents since are parameters used to report some data.

Equation 6 should be removed, or it should be well presented to clarify the relationship with the other equations of this paper.