## **Authors' Response**

We accepted all the comments and suggestions provided by the reviewers. We modified the text as follow:

- Section 3.2: we added one sentence to better explain the distance considered for characterizing the probability  $q(I_v/I_s)$ , as requested by RC2;
- We modified Figure 1 according to RC1 and we also added the 28 test localities used in section 4 according to RC2;
- Section 4.2: we added a new table (Table 2) with the details of the seismic histories of the 28
  test localities following RC2;
- We modified Figure 8 and Figure 9 according to RC1. We also added one sentence in the text to better explain the Figure 9.

In addition, we modified Figure 6 and the related text because we realised that there was a little mistake in the values. This change does not influence the results of the analysis.