Response to Reviewer3 (A.M. Michetti)

Black: original comments by Reviewer

Red: response by Authors

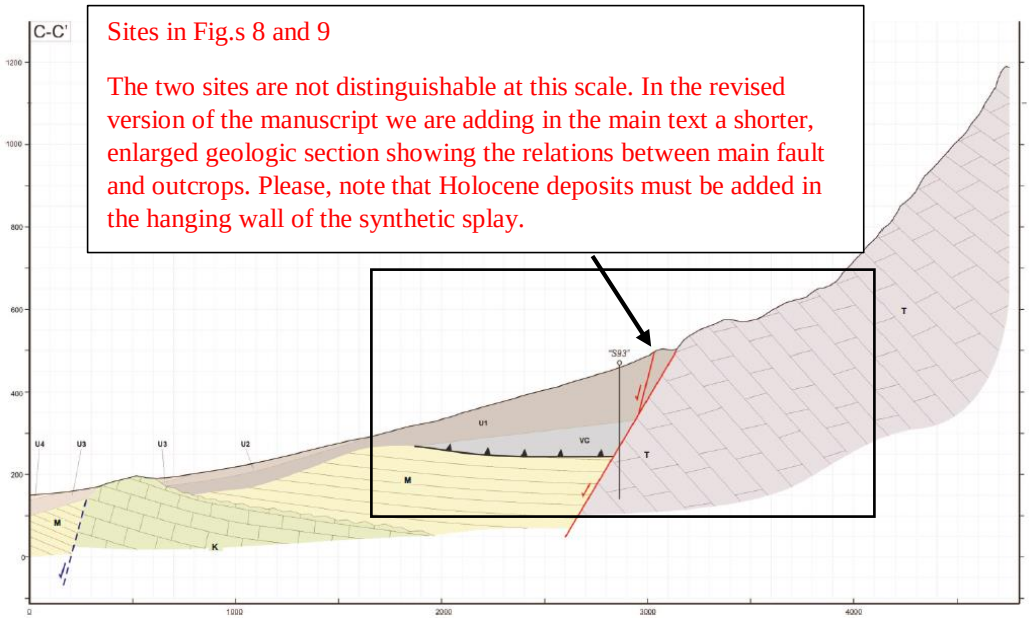
The manuscript is an interesting contribution for the characterization of seismic hazard from a major earthquake fault in Southern Italy, along the Southern Border of the Matese Massif. The collected data are excellent, and very detailed.

The general geologic and seismotectonic interpretation is convincing. My main comment is on the San Potito fault exposure along the Gioia Sannitica segment. I suggest to provide a general geological cross section of this exposure, to help the reader to understand the details presented in Figure 8 and 9.

1) Accepted. Certainly the geologic section will help the reader.

In fact, we have already drawn a geologic section across the San Potito site. This is Section C-C' in Plate S1 of the Supplementary material.

But, we understand that a geologic section within the main text is more efficient. We will add the geologic section in the main text, with location of the fault zones illustrated in Fig.s 8 and 9.



In my opinion, the most relevant result here is that the fault must have been activated at this aite during late Holocene. The implication is that atthis site capable faulting shifted basinward, moving from the range front to the piedmont belt.

2) Interesting suggestion.

In section C-C' (above), we interpreted faulting at the sites of Figs. 8 and 9 as due to synthetic splaying from the main fault. The site is very close to the range front. Moreover, from the topographic profile n. 9 in Fig. 7, it seems that the displacement (the topographic scarps) is partitioned between the two faults (main fault and synthetic splay). But, we cannot exclude a migration basinward, as suggested. Perhaps, with the new splay, the fault is trying to regularize its trace, becoming more and more strait.

The explanation of this shift is not clear, and must be discussed in the revised version of the manuscript. In any case, this is a relevant new result, and very interesting one. One may argue that the Matese Southern Front migth have been characterized by large slip-rate fluctuations during the mid to late Quaternary.

3) We agree. A deeper discussion on the activity of the SMF system, and the possible slip rate fluctuations will be discussed in the new Discussion section, after a general re-organization of the paper, as suggested by Reviewers 1 and 2.

Some specific comment is included in the attched annotated manuscript.

All the comments and suggestions in the attached pdf will be adequately considered during the revision.