Dear Professor Ma,

Thank you for your interest in this article and for your valuable questions and comments. Please consider the modifications we brought in the text as well as the following more specific answers.

It is indeed necessary and important task to propose a methodology to compute earthquake rate of the faults in the network for consideration in multiple fault segments rupture. This paper is scientific sounded and well presented. The methodology presented in this paper was tested on the Western Corinth Rift, Greece (WCR), which is in normal fault system regime. And, it is more distributed with moderate size earthquakes (M5.5∼6.5) historically. If it is possible, it would be good to discuss the pro and con of the methodology proposed in this paper to other faulting system, e.g. strike-slip or reverse. Or, this methodology might be limited only to the normal fault system, if so, why? As it is more in consideration of moderate size events, rather than other system, C1 which might giving larger Mmax as up to M>7 or larger?

As long as a network of faults with known slip-rates and geometries (within uncertainties) can be identified and a MFD can be defined for the whole range of magnitude in this network, the methodology can be applied. It is possible that for other fault networks, a Youngs and Coppersmith MFD might be more appropriate. For a hazard calculation for a region wider than the fault network itself, the methodology can be used to model the rates in the fault network and the resulting hazard models can then be merges with area sources for example. We modified the Perspectives section in order to convey this missing message.

P8 R34: "The methodology presented in this article can be applied to other fault systems, in different tectonic environments. In order to implement this approach, the geometries and slip-rates of the faults have to be known within uncertainties, FtF rupture scenarios sets have to be defined and the shape of the regional MFD needs to be assumed or inferred from the regional catalog. If for the WCR the GR distribution seems adapted, it has been shown that a Youngs and Coppersmith distribution (Youngs and Coppersmith, 1985) can be more appropriate for other fault systems (Hecker et al., 2013). In such a case, the methodology can be applied in applied in the same way for any other target MFD."

Comments 1. The paper adopted the magnitude determination using Wells and Coppersmith (1994). This scaling is more scaled from strike-slip events from California. Is it also capable to the normal fault? Or, maybe to consider the fault area – magnitude relationship, which is more widely considered now in PSHA? Or, this can be used in the logic tree.

In this study, we used the Wells and Coppersmith 1994 and the Leonard 2010 equations for normal faults based on the rupture area. We modified the text in order to make this point clearer.

P6 R20 : "In this study we explore different epistemic uncertainties having potentially an impact on the modelled earthquake rates (Figure 3): different FtF rupture sets as well as two scaling laws (Wells and Coppersmith 1994 WC94 and Leonard 2010 Le10), used to calculate the maximum magnitude that can occur on a fault according the fault area, and two values of the shear modulus μ (30 GPa and 20 GPa). For each scaling law, the equation for normal faults linking the rupture area to the magnitude is used. For each branch, 50 random samples are drawn from triangular distributions in order to explore the

uncertainty in the b value of the target MFD (1.15 ± 0.05), in the slip-rate of the faults and in the uncertainty within the scaling law."

2. The study in the Corinth Rift zone in a normal faulting system, historical events more in moderate earthquakes, what the implication this study can infer to other faulting system, as the strike-slip fault or collision fault system.

In our methodology, the tectonic setting is not a constraining parameter. Only the system's MFD, the faults geometries and slip-rate and the set of possible scenarios are relevant. In that matter, it is possible to apply the methodology when these three elements are known (see Perspective).

3. Terminology in using the words "subduction plane" in Table 2. What does that mean? Subduction zone interface events?

Yes, it mean subduction zone. We changed the text in Table 3.