

Interactive comment on “Magnetotelluric investigation in the High Agri Valley (southern Apennine, Italy)” by M. Balasco et al.

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The Agri Valley is characterized by a geo-structural complex pattern reflecting the superposition of two main tectonic phases: a Mio-Pliocene compression forming E-NE verging thrusts and folds and, starting from Early-Middle Pleistocene, an extensional tectonics with a NE-SW stretching axis, as reported by several authors indicated in the references of our manuscript. A heated debate in the scientific community concerns, in particular, the two different hypothesis about the location of the active fault systems causative of the strong earthquake ($M=7$) that struck in Agri Valley on 16 December 1857. MT results presented in this paper provided valuable information on the deep structure in a sector of the Lucanian Apennines in which often the geological and geo-

C3286

physical data, carried out by several oil companies, are not always available or confidential and/or published with low resolution. Anyway, in the last revision of our work, we strengthened our interpretations by integrating the latest subsurface geological information from a stratigraphic log of the Costa Molina 2 well (Stabile et al. 2014). Despite our efforts, concerning geo-structural setting of the Agri Valley, we acknowledge that the MT model does not completely solve the location of the potential seismogenic faults due to the fact that in recent years this region has been characterized by a low number of events. In any case, after an accurate focal mechanism computations, we recognize two different normal-faulting kinematics which are compatible to either EAFS or MMFS (F2 and F3 in Fig. 6b, respectively).

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C3287