

## ***Interactive comment on “Temporary seismic monitoring of the Sulmona area (Abruzzo, Italy): quality study of microearthquake locations” by M. A. Romano et al.***

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The paper is well written and it is the result of a long work of collection, merging and data revision. In my opinion the manuscript only needs minor revision, although a thorough re-organization of the topics is needed in some paragraphs. In particular, I found the paragraph 3.2 “Improvement of phase readings” rather difficult to follow because it contains too many technical details and too many numbers; I suggest to shorten and simplify the content. I understand that all these details are meant to help the reader to estimate the “improvement” on the phase readings; however the initial quality parameters are never discussed and only the final locations are analysed in terms of quality.

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The reader is not able to understand how much is the total improvement, and which part is due to the addition of data and which to the methodology used. I suggest to show at least a couple of graphs for comparison; in my view the comparison of initial and final gaps is a rough estimate of the improvement due to data addition, while the location errors reflect both aspects (data and model). In paragraph 4.1 the authors write that “model e is derived from model d” but this sentence is too generic. Please explain better. Finally add the years for the references to ISIDE and OASIS in the manuscript (in order to be the same as in the reference list). I suggest to update the reference list about the Maiella area and the Caramanico fault by adding the citation: Elter F.M., Elter P., Eva C., Eva E., Kraus R.K., Padovano M., Solarino S., “An alternative model for the recent evolution of the Northern-Central Apennines (Italy)”, J. of Geodynamics 54, 55-63, 2012 (page 2357, 19th line)

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