Answers to comments of Reviewer#2

January 16, 2026

We wish to thank the anonymous Reviewer#2 for his/her helpful comments. Hereafter the responses to his/her comments.

Reviewer#2:
The authors have addressed most of my comments/interrogations either directly in the manuscript or in the response letter. The manuscript was significantly improved; in particular the introduction has been extended to give a better overview of the context, the processing part is much more clearer without the need to read the mentioned references, etc. However, I still have several comments (see below), and in my opinion it requires minor revisions before it could be accepted for publication.
My main concern is about the introduction part. It sounds strange to have a subsection 1.1 (Seismological setting) but no subsection 1.2. I suggest either to set it as a section 2, or to integrate it (or part of it) in section 1 (without subsection) when presenting the region of interest of the study.
Authors: We modified the Seismological setting from a subsection to a section. Now, in the manuscript, the Seismological setting results as Section 2.

Reviewer#2:
Some additional typos:
- Legend of Figure 3 : the description of the meaning of the horizontal bar appear twice. Correct it.
- Line 191, p. 10 : replace "CASP is software for the detection" by "CASP is a software for the detection" ;
- Line 328, p. 19 : replace "To asses" by "to assess" - Legend of figure 8 : replace "hystograms" by "histograms" ;
- Line 498, p. 31 : replace "ossible inconvenience" by "Possible inconvenience"
- Line 532, p. 32 : replace "In Fig. 14Class B" by "In Fig. 14 Class B"
- Line 536, p. 32 : replace "same Sw-NE direction" by "same SW-NE direction"
- p. 45 : Figure A8 in stead of Figure 8.
Authors: We corrected all these typos in the manuscript as suggested.

Answers to comments of Topic Editor

January 16, 2026

Editor:
Dear Authors We have received the final reviews of your manuscript, which are overall positive. Before being finally accepted for publication, I recommend considering and fixing the following aspects.
1) Please check and include in the final manuscript the additional recommendations of Reviewer 2
Authors: we fixed the manuscript with the other recommendations of Reviewer 2 as requested.

Editor:
2) From my side, I noticed that, according to the section "Code Availability" of the MS, "the code CASP is available under license at https://lunitek.it/seismic/seismic-software/casp/" (line 624). - At the mentioned website, I cannot find any details about the license under which the software is released. Please provide in the MS the details of the licence associated with the software, double-check and clearly state that such a licence does not imply any restrictions on the derived data (i.e., your catalogue).
Authors: we clarified the detail of the CASP licence in the manuscript, in section Code Availability, since the licence of this code was acquired by the INGV. The licence is of commercial type and at the link the reader can find the contacts to purchase it. Any restriction on data is present.

Editor:
- At line 67 (and not at line 43, where it is mentioned first), the CASP code is cited as Scafidi et al. (2019). Please clarify the relationship between this paper and the code mentioned in the section "Code availability".
Authors: The CASP must be cited by referring to Scafidi et al ., (2019) because this is the reference paper which describes and validates the CASP code workflow with its modular structure (trigger, event detection, waveform extraction and automatic picking of P and S phases).

Editor:
- Please, provide the citations for the NNL and H71 codes also in the section "Code Availability". Please also note that the Section "Code availability" must be placed after "Data Availability" and "Conclusions" (see https://www.earth-

system-science-data.net/submission.html)
Authors: we added in the manuscript the citations of NLL (Lomax et al., 2000) and H71 (Lee et al., 1972) in the section Code vailability. Then we moved this section in the correct position of the manuscript as requested following the guide lines of ESSD.

Editor:
3) Please, include in the Abstract the full citation and DOI of your dataset, as per ESSD requirements (see https://www.earth-system-science-data.net/submission.html).
Authors: we added in the Abstract of the manuscript the citation of our dataset of Mendeley data (Ferreri et al., 2025) with the relative doi of this dataset (https://doi.org/10.17632/nhfvx7ysxw.5) as requested.

References

Ferreri, A. P., Romeo, A., Giannuzzi, R., Cecere, G., Falco, L., Filippucci, M., Michele, M., Ninivaggi, T., Selvaggi, G., and Tallarico, A.: The new seismic catalog of the Gargano area (Southern Italy) after a decade of seismic monitoring by OTRIONS network, https://doi.org/10.17632/nhfvx7ysxw.5, 2025.

Lee, W. H. and Lahr, J. C.: HYPO71 (revised; a computer program for determining hypocenter, magnitude, and first motion pattern of local earthquakes, Tech. rep., US Dept. of the Interior, Geological Survey, National Center for Earthquake . . . , 1975.715

Lomax, A., Virieux, J., Volant, P., and Berge-Thierry, C.: Probabilistic Earthquake Location in 3D and Layered Models, pp. 101–134, Springer Netherlands, Dordrecht, ISBN 978-94-015-9536-0, https://doi.org/10.1007/978-94-015-9536-0_5, 2000.

Scafidi, D., Spallarossa, D., Ferretti, G., Barani, S., Castello, B., and Margheriti, L.: A Complete Automatic Procedure to Compile Reliable Seismic Catalogs and Travel-Time and Strong-Motion Parameters Datasets, Seismological Research Letters, 90, 1308–1317, https://doi.org/10.1785/0220180257, 2019.