

**Discussion Paper ‘Distributed acoustic sensing as a tool for exploration and monitoring: a proof-of-concept’, by Nicola Piana Agostinetti and co-workers.**

**Response to Reviewer #3**

**Reviewer #3**

Earthquake seismology is not my discipline. But I see how this paper pushes forward the comparison of DAS and nodal data at Brady's from the recent Wang and Van Eden papers. However, I would like to see if there are more quantitative ways to incorporate the velocity model of the area instead of always making generalities about local velocity changes. This area has great active seismic studies that should be cited (as suggested in the attached) and included in this paper.

We thank Reviewer #3 for her/his review and the commented PDF. We will compare our results to the local velocity model available, where possible. Our study is more focused on the validation of seismic recordings obtained through the interrogation of a fiber cable. Thus, reconstructing a full velocity model is beyond our scope here.

We here answer to the most relevant comments inserted in the PDF, but we also wish to include/address all the comments/questions found in the PDF.

1. like the other reviewer, I have a hard time with this nomenclature: exploration has been done more with the active seismic studies at Brady's.

Here, we refer to our answer to Reviewer #1 and #2. Being all comments on the nomenclature consistent, we will revise it according to them.

2. I believe this could be quantified more using the available velocity models of PoroTomo.
3. Again, I would like to see incorporation of the available velocity models

We will include a comparison with the 3D local velocity models (e.g. the active seismic tomography) where possible.