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Interactive comment on "Systematic Identification of External Influences in Multi-Year Micro-Seismic Recordings Using Convolutional Neural Networks" *by* Matthias Meyer et al.

JM Turowski (Editor)

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Dear authors,

I agree with the reviewers that the papers presents a potentially very useful contribution, however, currently there are weaknesses and the presentation (language and structure). The comments of the reviewers largely speak for themselves; although they assess the paper from different angles, the common feature of their assessment is that there is a lack of clarity. Reviewer #1 focusses more on the language and structure problems. In addition, he asks to evaluate your work in a broader context in the discussion/conclusion. Similarly, reviewer #2 asks for a more detailed description of the

method and a better acknowledgment of previous work.

I largely agree with that. When revising the paper, I ask you specifically to think from the perspecitve of a potential user. Is all the information available to reproduce the analysis? Can the reasoning be followed easily? Can the necessary information be clearly accessed in the manuscript? Is the approach described separately from specific features of the case study? Is the evaluation of the method objective?

In addition, I want to highlight a few specific stylistic points, which may help you to revise the paper and achieve the aims outlined above. I will do this quoting specific example (page.line).

2.11 '. . .very unattractive overall solution. . .': please avoid subjective judgements such at this. It is better to list the pros and cons, and then explain your priorities and your reasoning.

5.3 'Care is taken. . .'; 6.12 'But the meticulous care does pay off.'; 7.8 'Care has been taken to prevent significant data gaps. . .': Such statements are not helpful to the reader. The phrasing is meant to convey some particularly high standards of scientific rigour. However, it is unclear what you have actually done, and thus your 'care' is not reproducible. It would be better if you describe your actual measures (e.g., for preventing significant data gaps) and then describe how well they worked, and if they failed, why they failed. Again, here it is important to keep the reproducability of the work in mind.

8.6 'It becomes apparent in Fig. 5 (b)-(c) that anthropogenic noise, such as mountaineers walking by or helicopters, can have a strong influence on seismic recordings.': This sentence is an example of how results are mixed into the method description. There are multiple other instances. I ask you to separate this and present the methodology in the methods section and the results in the results section.

18.2 'The results of the classifier experiments from Sect. 3.2 are listed in Table 3.': Such sentences contain little information. It would be better to state the main result or

feature (that is important in the current context) and then cite the table in parentheses.

Looking forward to seeing your revised paper,

best wishes, Jens Turowski

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