**Response to the Reviewers**

**Paper No. a016:** Recent Advances in the TUH EEG Corpus: Improving the Interrater Agreement for Artifacts and Epileptiform Events

We would like to thank the reviewers and technical committee for their constructive criticism, expert suggestions, and valuable insights for our paper. We incorporated many of the suggestions and corrected any issues they suggested to improve our abstract.

**Reviewer #1:**

1. The paper highlights important shortcomings to the data set of interest. The authors provide a summary of how they solved these shortcomings to improve the data set. Some parts can be reworked for clarity (see reviewers’ comments). Also, metrics should be included to quantify the degree to which these changes improved the data set.

*Response: We added metrics in the third and fourth paragraphs to quantify the effects of the changes made to the data set.*

2. In the second paragraph, it was not explicitly stated whether the annotations were specifically for these high frequency seizures—I can only assume. A “Regarding (2)” or alike similar to the beginning of the start of the paragraph would be helpful.

*Response: Thank you for pointing this out, we reference (2) in the fourth paragraph where we discuss the annotation of high frequency seizures.*

3. Additionally, they address specific issues such as memory limits and annotation inconsistencies. In my opinion, both changes increase the utility and reliability of the data set. However, the authors fail to mention any metrics for whether there is a significant improvement in either category via some metric. I can appreciate their change of format for annotation, but an example of how they are using XML for this hierarchical annotation would be helpful. This should be highlighted in the poster.

*Response: Thank you for your suggestions, we will add an example of how we are using XML in our poster.*

**Reviewer #2:**

1. This abstract of a poster is well-written and organized. It provides an appropriate justification and reasoning for the improvement of the TUH EEG corpus, especially in terms of artifact annotation.

*Response: Thank you for your review.*

**Reviewer #3:**

1. The abstract discusses recent advances in the ongoing TUH EEG Corpus project. Authors address the data leakage between the train/test splits of the TUSZ database by rearranging the patients. The new development and evaluation sets are designed such that their sizes match the previous versions of the database. Although the quality control (QC) process is rigorously executed, Kappa statistic > 0.8 seems very high. The authors should verify and provide some insight into it.

*Response: We have verified that our Kappa statistic is > 0.8 and added an explanation of how we calculated this value in the abstract.*

2. Integration of hierarchical annotations using standard XML file format will make this process easier for the users. The statement "Eye movements are often mistaken as seizures due to their similar morphology" perhaps points to a specific signal morphology. In most cases, eye movements are easily differentiable from the seizure events. Consider adding an example during the poster presentation. The abstract is well written and easy to understand. Verify the interrater agreement Kappa statistic.

*Response: Thank you for your suggestions, we will add an example comparing eye movement to a seizure in our poster. We also verified the Kappa statistic and added an explanation of how we calculated the value.*