Supplementary material II, spindle characteristics for unseen expert

In this document, we expose the spindle characteristics material from the study "Beyond the ground truth, XGBoost model applied to sleep spindle event detection." This material is left out of the manuscript because of extension and clarity concerns, but we consider it to give important insights into the performance of our methodology.

In contrast to the supplementary material I, here we compare the spindle characteristics of the automatic method (SpinCo) to those of the expert that was not used for training and validation in MASS SS2.
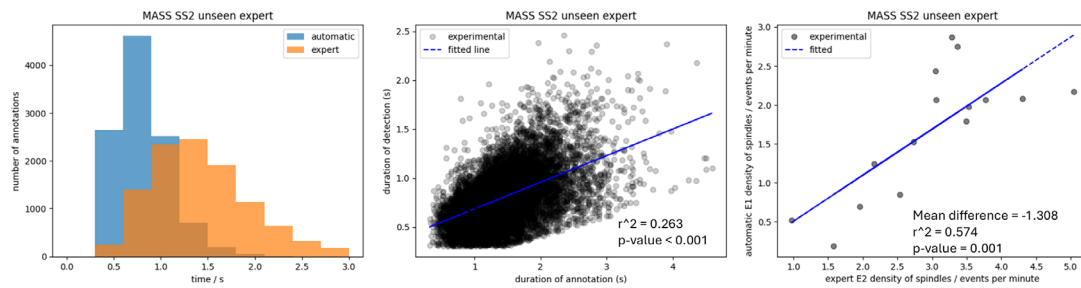

Figure 1. Spindle characteristics for MASS SS2 unseen expert (IoU > 0.2): Automatic E1 *vs*. Expert E2. This data corresponds to the comparison of the automatic method trained and validated using an IoU threshold of 0.2 and E1 data, against the annotations of E2. Left panel: histograms of spindle durations. Central panel: correlation of spindle duration for positive pairs. Right panel: subject-wise correlation of spindle densities.
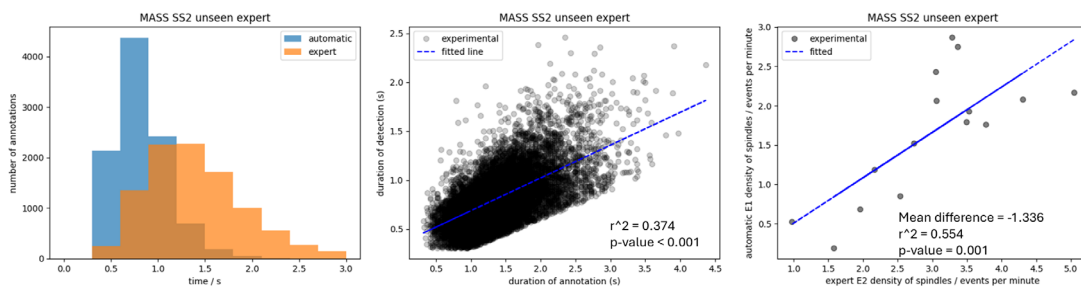

Figure 2. Spindle characteristics for MASS SS2 unseen expert (IoU > 0.3): Automatic E1 *vs*. Expert E2. This data corresponds to the comparison of the automatic method trained and validated using an IoU threshold of 0.3 and E1 data, against the annotations of E2. Left panel: histograms of spindle durations. Central panel: correlation of spindle duration for positive pairs. Right panel: subject-wise correlation of spindle densities.
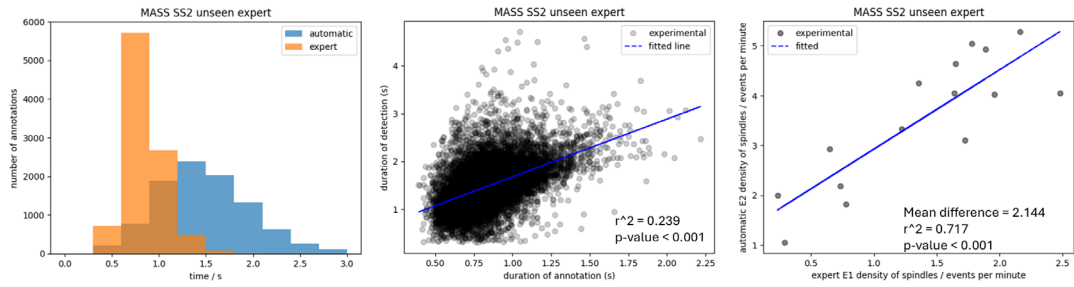
Figure 3. Spindle characteristics for MASS SS2 unseen expert (IoU > 0.2): Automatic E2 *vs*. Expert E1. This data corresponds to the comparison of the automatic method trained and validated using an IoU threshold of 0.2 and E2 data, against the annotations of E1. Left panel: histograms of spindle durations. Central panel: correlation of spindle duration for positive pairs. Right panel: subject-wise correlation of spindle densities.
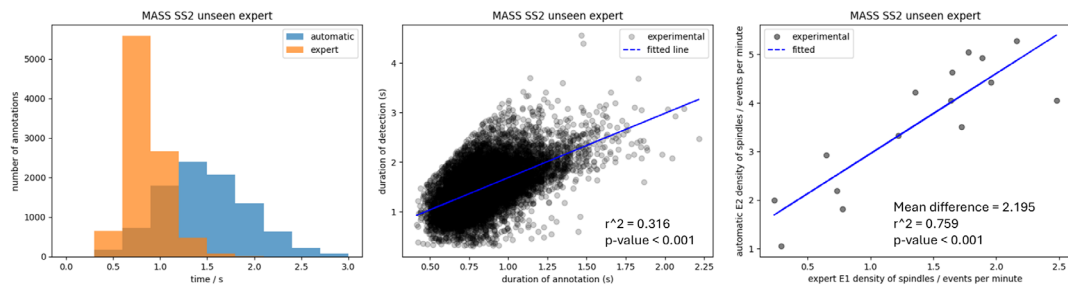

Figure 4. Spindle characteristics for MASS SS2 unseen expert (IoU > 0.3): Automatic E2 *vs*. Expert E1. This data corresponds to the comparison of the automatic method trained and validated using an IoU threshold of 0.3 and E2 data, against the annotations of E1. Left panel: histograms of spindle durations. Central panel: correlation of spindle duration for positive pairs. Right panel: subject-wise correlation of spindle densities.