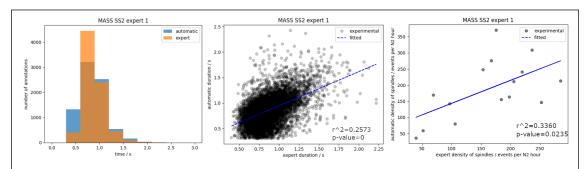
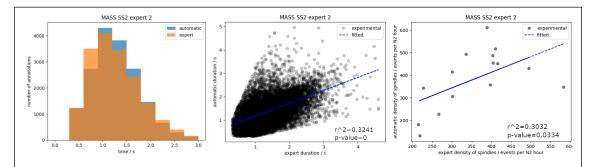
## Supplementary material I, spindle characteristics

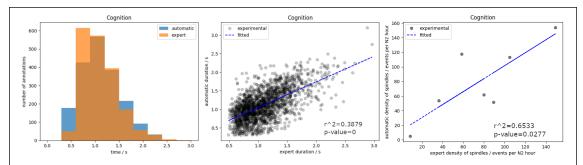
In this document we expose the material regarding the spindle characteristics from the study "Beyond the ground truth, XGBoost model applied to sleep spindle event detection". This material is left out of the manuscript because of extension and clarity concerns but we consider it can give important insights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



**Figure 1. Spindle characteristics for MASS SS2 expert 1.** Left panel: spindle duration histogram. Central panel: spindle duration correlation for positive pairs. Right panel: spindle density correlation by subject.



**Figure 2. Spindle characteristics for MASS SS2 expert 2.** Left panel: spindle duration histogram. Central panel: spindle duration correlation for positive pairs. Right panel: spindle density correlation by subject.



**Figure 5. Spindle characteristics for COGNITION.** Left panel: spindle duration histogram. Central panel: spindle duration correlation for positive pairs. Right panel: spindle density correlation by subject.