Figure 1. (a) A heatmap representing the absolute values of the Spearman correlation coefficients between variables. Each row and column represents one of the 561 variables; activity and subject variables are omitted. Red (dark) colors indicate little correlation between the corresponding variables, while yellow-white (light) colors indicate a large correlation. Note that the color of the diagonal that runs from upper left to lower right is white, since a variable correlates well with itself. (b) A plot of variable importance (mean decrease in GINI coefficient) for the final random forest model. The top 20 variables are listed; the most important terms are related to gravitational acceleration, while all of the terms shown are derived from the time-domain sensor signals.