

7.6.2 Disease severity

The average accuracy across all ten cross validation trials in classifying each night as belonging to one of the four disease classes is shown in Figure 47. A total of 6446 nights were classified for a total of 1059 subjects. The mean accuracy for the single night classification was 0.85 ($SD = 0.01$). The maximum accuracy (0.87, $SD = 0.02$) was achieved setting the number of sleep modalities to 16 and using the first 9 eigenvectors. For this setting we achieved an accuracy of 0.94 ($SD = 0.03$) for the subject classification.

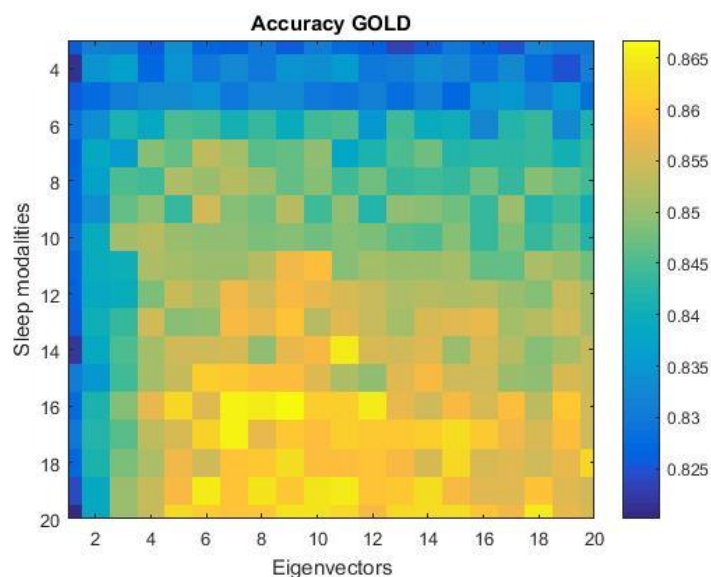


Figure 47 Accuracy matrix for predicting the patients' level of disease severity given each assessed night.

7.6.3 MMRC score

The average accuracy across all ten cross validation trials in classifying each night as belonging to one of the five MMRC classes is shown in Figure 48. A total of 5588 nights were classified for a total of 914 subjects. The mean accuracy for the single night classification was 0.82 ($SD = 0.01$). The maximum accuracy (0.84, $SD = 0.03$) was achieved setting the number of sleep modalities to 19 and using the first 10 eigenvectors. For this setting we achieved an accuracy of 0.93 ($SD = 0.03$) for the subject classification.