Supplement

**Linking brain structure, cognition, and sleep: insights from clinical data**

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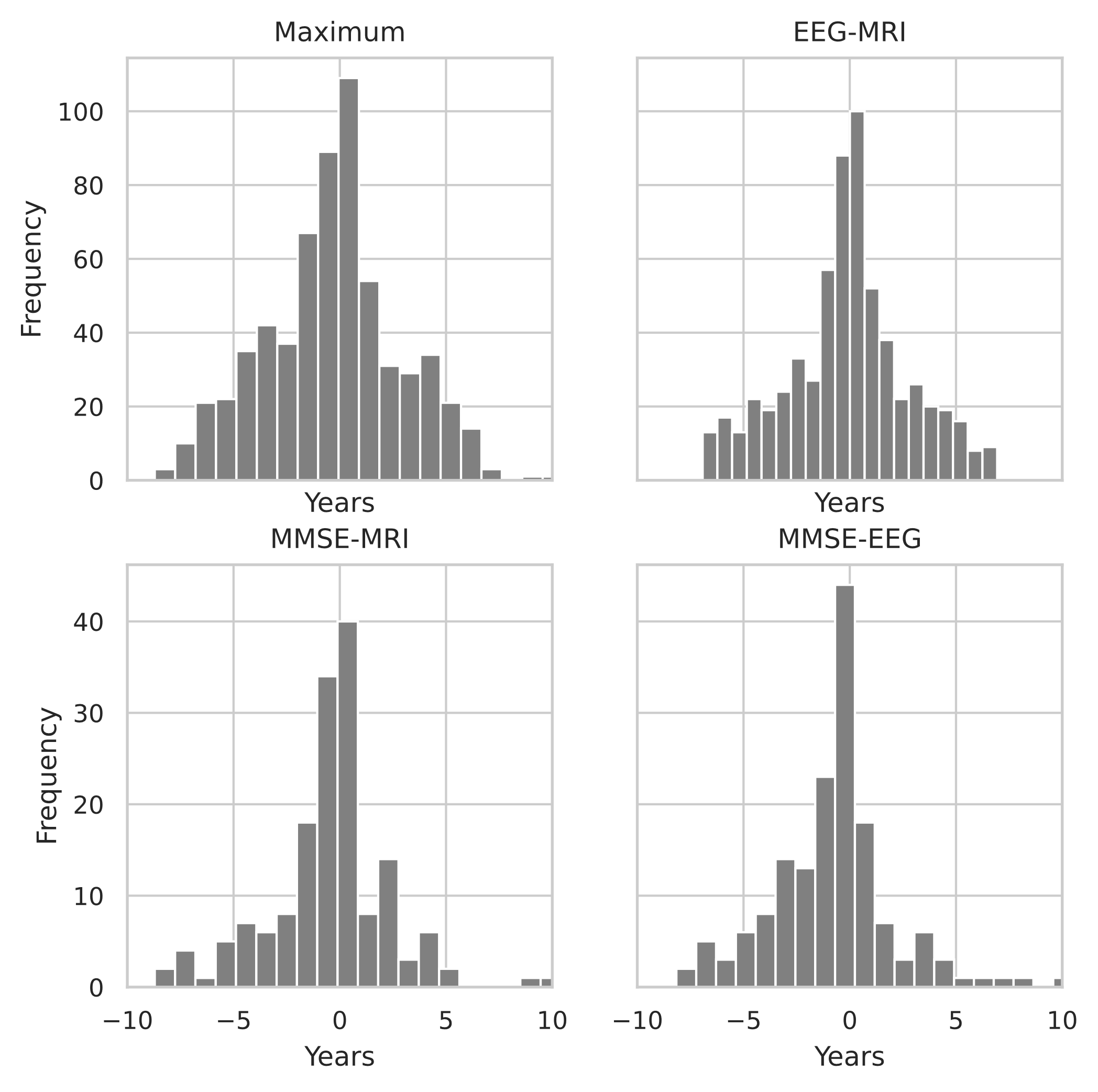
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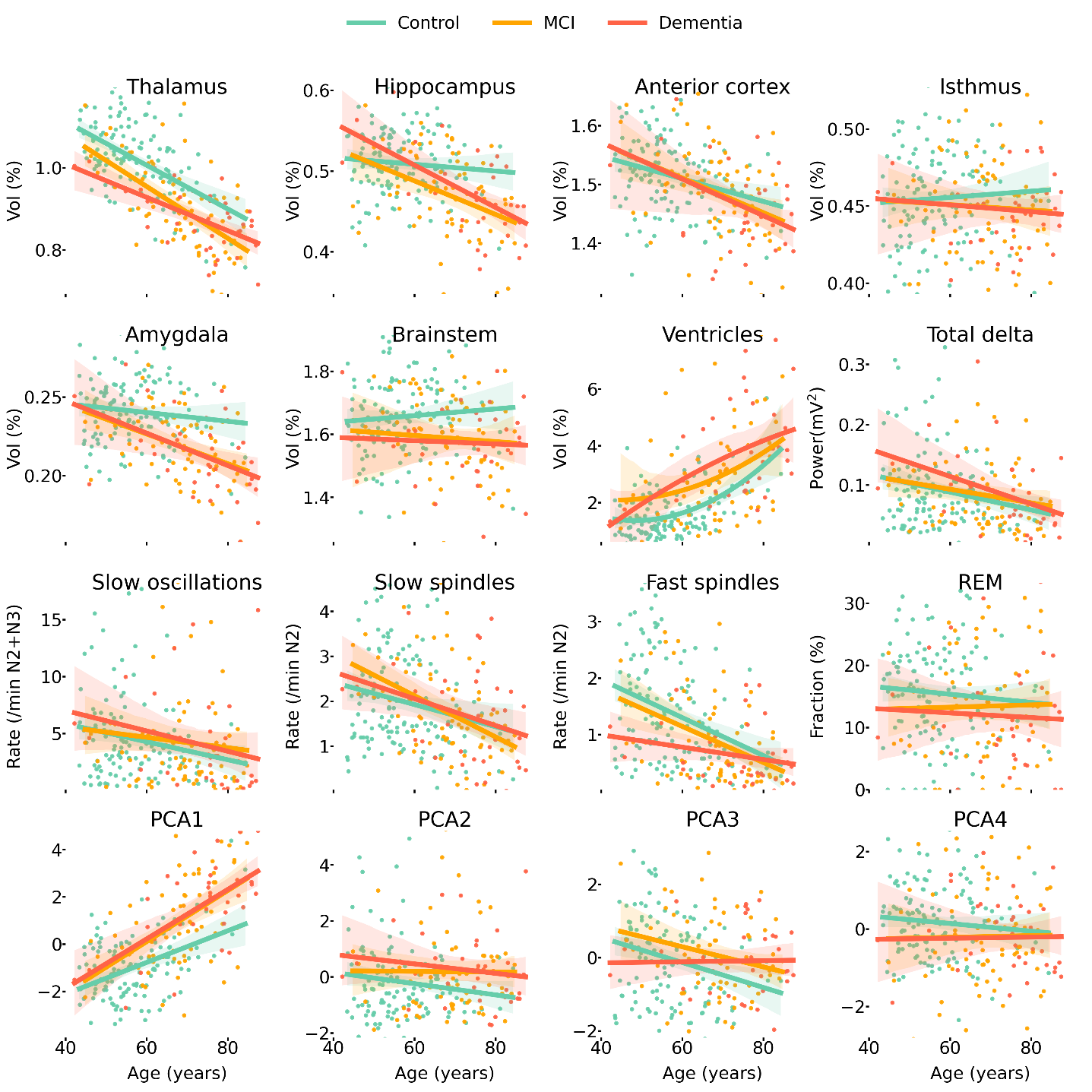
**Figure S1: Time difference in years between EEG, MRI and neuropsychological measures, as well as the maximum difference between the tests.**

**Table S1:** Sensitivity analysis of a-priori hypotheses stratified by subjects' chronological age and time distances between EEG, MRI, and neuropsychological measures.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Feature Pair** | **Cohort selection** | **Pearson R** | **p-value** | **Partial  Pearson R** | **p-value** | **N subjects** | **Age** | **% female** |
| ('Total slow and delta power', 'Anterior cortex') | dt all, age all | 0.10 | 0.01 | -0.04 | 0.28 | 623 | 60.9 (12.5) | 0.55 |
| ('Total slow and delta power', 'Anterior cortex') | dt all, age younger than 60 | -0.01 | 0.80 | -0.08 | 0.16 | 285 | 49.9 (7.9) | 0.61 |
| ('Total slow and delta power', 'Anterior cortex') | dt all, age between 60-70 | 0.00 | 1.00 | 0.03 | 0.71 | 187 | 65.1 (2.9) | 0.58 |
| ('Total slow and delta power', 'Anterior cortex') | dt all, age older than 70 | 0.08 | 0.35 | 0.06 | 0.47 | 151 | 76.6 (4.6) | 0.39 |
| ('Total slow and delta power', 'Anterior cortex') | dt within 1 year, age all | 0.06 | 0.41 | -0.05 | 0.49 | 205 | 60.0 (12.8) | 0.56 |
| ('Total slow and delta power', 'Anterior cortex') | dt within 1 year, age younger than 60 | -0.06 | 0.54 | -0.08 | 0.43 | 100 | 49.3 (7.5) | 0.62 |
| ('Total slow and delta power', 'Anterior cortex') | dt within 1 year, age between 60-70 | 0.01 | 0.97 | 0.12 | 0.38 | 59 | 65.2 (2.9) | 0.58 |
| ('Total slow and delta power', 'Anterior cortex') | dt within 1 year, age older than 70 | 0.14 | 0.34 | 0.17 | 0.27 | 46 | 76.8 (5.0) | 0.41 |
| ('Total slow and delta power', 'Anterior cortex') | dt between 1-2.5 years, age all | 0.17 | 0.03 | 0.01 | 0.87 | 159 | 62.8 (12.0) | 0.47 |
| ('Total slow and delta power', 'Anterior cortex') | dt between 1-2.5 years, age younger than 60 | 0.30 | 0.01 | 0.24 | 0.06 | 64 | 51.1 (7.4) | 0.55 |
| ('Total slow and delta power', 'Anterior cortex') | dt between 1-2.5 years, age between 60-70 | -0.27 | 0.06 | -0.25 | 0.09 | 48 | 65.0 (3.0) | 0.52 |
| ('Total slow and delta power', 'Anterior cortex') | dt between 1-2.5 years, age older than 70 | 0.13 | 0.37 | 0.00 | 0.99 | 47 | 76.7 (4.2) | 0.3 |
| ('Total slow and delta power', 'Anterior cortex') | dt between 2.5-7 years, age all | 0.10 | 0.11 | -0.05 | 0.44 | 259 | 60.4 (12.5) | 0.59 |
| ('Total slow and delta power', 'Anterior cortex') | dt between 2.5-7 years, age younger than 60 | -0.06 | 0.51 | -0.16 | 0.09 | 121 | 49.8 (8.4) | 0.64 |
| ('Total slow and delta power', 'Anterior cortex') | dt between 2.5-7 years, age between 60-70 | 0.14 | 0.21 | 0.13 | 0.26 | 80 | 65.0 (2.8) | 0.61 |
| ('Total slow and delta power', 'Anterior cortex') | dt between 2.5-7 years, age older than 70 | 0.02 | 0.90 | 0.05 | 0.72 | 58 | 76.3 (4.7) | 0.45 |
| ('Total slow and delta power', 'Anterior cortex') |  |  |  |  |  |  |  |  |
| ('Total slow and delta power', 'Thalamus') | dt all, age all | 0.27 | 0.00 | -0.01 | 0.75 | 623 | 60.9 (12.5) | 0.55 |
| ('Total slow and delta power', 'Thalamus') | dt all, age younger than 60 | 0.14 | 0.01 | -0.03 | 0.61 | 285 | 49.9 (7.9) | 0.61 |
| ('Total slow and delta power', 'Thalamus') | dt all, age between 60-70 | 0.16 | 0.03 | 0.10 | 0.18 | 187 | 65.1 (2.9) | 0.58 |
| ('Total slow and delta power', 'Thalamus') | dt all, age older than 70 | 0.10 | 0.22 | -0.08 | 0.36 | 151 | 76.6 (4.6) | 0.39 |
| ('Total slow and delta power', 'Thalamus') | dt within 1 year, age all | 0.26 | 0.00 | -0.02 | 0.83 | 205 | 60.0 (12.8) | 0.56 |
| ('Total slow and delta power', 'Thalamus') | dt within 1 year, age younger than 60 | 0.15 | 0.13 | 0.05 | 0.63 | 100 | 49.3 (7.5) | 0.62 |
| ('Total slow and delta power', 'Thalamus') | dt within 1 year, age between 60-70 | 0.15 | 0.26 | 0.08 | 0.55 | 59 | 65.2 (2.9) | 0.58 |
| ('Total slow and delta power', 'Thalamus') | dt within 1 year, age older than 70 | 0.14 | 0.35 | -0.05 | 0.77 | 46 | 76.8 (5.0) | 0.41 |
| ('Total slow and delta power', 'Thalamus') | dt between 1-2.5 years, age all | 0.27 | 0.00 | -0.03 | 0.74 | 159 | 62.8 (12.0) | 0.47 |
| ('Total slow and delta power', 'Thalamus') | dt between 1-2.5 years, age younger than 60 | 0.24 | 0.06 | 0.06 | 0.64 | 64 | 51.1 (7.4) | 0.55 |
| ('Total slow and delta power', 'Thalamus') | dt between 1-2.5 years, age between 60-70 | 0.07 | 0.64 | -0.04 | 0.79 | 48 | 65.0 (3.0) | 0.52 |
| ('Total slow and delta power', 'Thalamus') | dt between 1-2.5 years, age older than 70 | 0.13 | 0.39 | -0.16 | 0.30 | 47 | 76.7 (4.2) | 0.3 |
| ('Total slow and delta power', 'Thalamus') | dt between 2.5-7 years, age all | 0.27 | 0.00 | 0.00 | 0.97 | 259 | 60.4 (12.5) | 0.59 |
| ('Total slow and delta power', 'Thalamus') | dt between 2.5-7 years, age younger than 60 | 0.13 | 0.16 | -0.09 | 0.34 | 121 | 49.8 (8.4) | 0.64 |
| ('Total slow and delta power', 'Thalamus') | dt between 2.5-7 years, age between 60-70 | 0.19 | 0.09 | 0.17 | 0.14 | 80 | 65.0 (2.8) | 0.61 |
| ('Total slow and delta power', 'Thalamus') | dt between 2.5-7 years, age older than 70 | 0.12 | 0.36 | 0.01 | 0.92 | 58 | 76.3 (4.7) | 0.45 |
| ('Total slow and delta power', 'Thalamus') |  |  |  |  |  |  |  |  |
| ('SO rate frontal', 'Anterior cortex') | dt all, age all | 0.08 | 0.04 | -0.01 | 0.72 | 623 | 60.9 (12.5) | 0.55 |
| ('SO rate frontal', 'Anterior cortex') | dt all, age younger than 60 | -0.01 | 0.85 | -0.06 | 0.32 | 285 | 49.9 (7.9) | 0.61 |
| ('SO rate frontal', 'Anterior cortex') | dt all, age between 60-70 | 0.08 | 0.28 | 0.10 | 0.19 | 187 | 65.1 (2.9) | 0.58 |
| ('SO rate frontal', 'Anterior cortex') | dt all, age older than 70 | -0.01 | 0.86 | -0.02 | 0.84 | 151 | 76.6 (4.6) | 0.39 |
| ('SO rate frontal', 'Anterior cortex') | dt within 1 year, age all | 0.09 | 0.18 | 0.05 | 0.50 | 205 | 60.0 (12.8) | 0.56 |
| ('SO rate frontal', 'Anterior cortex') | dt within 1 year, age younger than 60 | 0.00 | 1.00 | -0.01 | 0.92 | 100 | 49.3 (7.5) | 0.62 |
| ('SO rate frontal', 'Anterior cortex') | dt within 1 year, age between 60-70 | 0.20 | 0.13 | 0.23 | 0.08 | 59 | 65.2 (2.9) | 0.58 |
| ('SO rate frontal', 'Anterior cortex') | dt within 1 year, age older than 70 | -0.04 | 0.80 | 0.01 | 0.93 | 46 | 76.8 (5.0) | 0.41 |
| ('SO rate frontal', 'Anterior cortex') | dt between 1-2.5 years, age all | 0.16 | 0.05 | 0.06 | 0.45 | 159 | 62.8 (12.0) | 0.47 |
| ('SO rate frontal', 'Anterior cortex') | dt between 1-2.5 years, age younger than 60 | 0.21 | 0.09 | 0.19 | 0.14 | 64 | 51.1 (7.4) | 0.55 |
| ('SO rate frontal', 'Anterior cortex') | dt between 1-2.5 years, age between 60-70 | -0.25 | 0.09 | -0.23 | 0.12 | 48 | 65.0 (3.0) | 0.52 |
| ('SO rate frontal', 'Anterior cortex') | dt between 1-2.5 years, age older than 70 | 0.08 | 0.57 | -0.02 | 0.91 | 47 | 76.7 (4.2) | 0.3 |
| ('SO rate frontal', 'Anterior cortex') | dt between 2.5-7 years, age all | 0.03 | 0.66 | -0.09 | 0.15 | 259 | 60.4 (12.5) | 0.59 |
| ('SO rate frontal', 'Anterior cortex') | dt between 2.5-7 years, age younger than 60 | -0.14 | 0.14 | -0.22 | 0.01 | 121 | 49.8 (8.4) | 0.64 |
| ('SO rate frontal', 'Anterior cortex') | dt between 2.5-7 years, age between 60-70 | 0.10 | 0.39 | 0.09 | 0.44 | 80 | 65.0 (2.8) | 0.61 |
| ('SO rate frontal', 'Anterior cortex') | dt between 2.5-7 years, age older than 70 | -0.05 | 0.71 | -0.02 | 0.88 | 58 | 76.3 (4.7) | 0.45 |
| ('SO rate frontal', 'Anterior cortex') |  |  |  |  |  |  |  |  |
| ('SO rate frontal', 'Thalamus') | dt all, age all | 0.20 | 0.00 | 0.00 | 0.95 | 623 | 60.9 (12.5) | 0.55 |
| ('SO rate frontal', 'Thalamus') | dt all, age younger than 60 | 0.11 | 0.08 | -0.02 | 0.78 | 285 | 49.9 (7.9) | 0.61 |
| ('SO rate frontal', 'Thalamus') | dt all, age between 60-70 | 0.13 | 0.07 | 0.07 | 0.36 | 187 | 65.1 (2.9) | 0.58 |
| ('SO rate frontal', 'Thalamus') | dt all, age older than 70 | 0.06 | 0.46 | -0.07 | 0.40 | 151 | 76.6 (4.6) | 0.39 |
| ('SO rate frontal', 'Thalamus') | dt within 1 year, age all | 0.17 | 0.02 | 0.00 | 0.99 | 205 | 60.0 (12.8) | 0.56 |
| ('SO rate frontal', 'Thalamus') | dt within 1 year, age younger than 60 | 0.20 | 0.05 | 0.11 | 0.28 | 100 | 49.3 (7.5) | 0.62 |
| ('SO rate frontal', 'Thalamus') | dt within 1 year, age between 60-70 | 0.08 | 0.54 | -0.02 | 0.89 | 59 | 65.2 (2.9) | 0.58 |
| ('SO rate frontal', 'Thalamus') | dt within 1 year, age older than 70 | 0.07 | 0.64 | -0.03 | 0.84 | 46 | 76.8 (5.0) | 0.41 |
| ('SO rate frontal', 'Thalamus') | dt between 1-2.5 years, age all | 0.17 | 0.03 | -0.01 | 0.90 | 159 | 62.8 (12.0) | 0.47 |
| ('SO rate frontal', 'Thalamus') | dt between 1-2.5 years, age younger than 60 | 0.08 | 0.52 | 0.03 | 0.80 | 64 | 51.1 (7.4) | 0.55 |
| ('SO rate frontal', 'Thalamus') | dt between 1-2.5 years, age between 60-70 | 0.03 | 0.86 | -0.04 | 0.79 | 48 | 65.0 (3.0) | 0.52 |
| ('SO rate frontal', 'Thalamus') | dt between 1-2.5 years, age older than 70 | 0.02 | 0.92 | -0.23 | 0.13 | 47 | 76.7 (4.2) | 0.3 |
| ('SO rate frontal', 'Thalamus') | dt between 2.5-7 years, age all | 0.22 | 0.00 | 0.02 | 0.81 | 259 | 60.4 (12.5) | 0.59 |
| ('SO rate frontal', 'Thalamus') | dt between 2.5-7 years, age younger than 60 | 0.08 | 0.40 | -0.08 | 0.41 | 121 | 49.8 (8.4) | 0.64 |
| ('SO rate frontal', 'Thalamus') | dt between 2.5-7 years, age between 60-70 | 0.16 | 0.14 | 0.15 | 0.20 | 80 | 65.0 (2.8) | 0.61 |
| ('SO rate frontal', 'Thalamus') | dt between 2.5-7 years, age older than 70 | 0.15 | 0.25 | 0.08 | 0.56 | 58 | 76.3 (4.7) | 0.45 |
| ('SO rate frontal', 'Thalamus') |  |  |  |  |  |  |  |  |
| ('Slow spindles density frontal', 'Thalamus') | dt all, age all | 0.19 | 0.00 | 0.01 | 0.88 | 623 | 60.9 (12.5) | 0.55 |
| ('Slow spindles density frontal', 'Thalamus') | dt all, age younger than 60 | -0.10 | 0.09 | -0.11 | 0.08 | 285 | 49.9 (7.9) | 0.61 |
| ('Slow spindles density frontal', 'Thalamus') | dt all, age between 60-70 | 0.10 | 0.18 | 0.06 | 0.45 | 187 | 65.1 (2.9) | 0.58 |
| ('Slow spindles density frontal', 'Thalamus') | dt all, age older than 70 | 0.15 | 0.07 | 0.12 | 0.16 | 151 | 76.6 (4.6) | 0.39 |
| ('Slow spindles density frontal', 'Thalamus') | dt within 1 year, age all | 0.22 | 0.00 | 0.03 | 0.62 | 205 | 60.0 (12.8) | 0.56 |
| ('Slow spindles density frontal', 'Thalamus') | dt within 1 year, age younger than 60 | -0.09 | 0.38 | -0.10 | 0.35 | 100 | 49.3 (7.5) | 0.62 |
| ('Slow spindles density frontal', 'Thalamus') | dt within 1 year, age between 60-70 | 0.00 | 0.97 | -0.04 | 0.78 | 59 | 65.2 (2.9) | 0.58 |
| ('Slow spindles density frontal', 'Thalamus') | dt within 1 year, age older than 70 | 0.28 | 0.06 | 0.21 | 0.17 | 46 | 76.8 (5.0) | 0.41 |
| ('Slow spindles density frontal', 'Thalamus') | dt between 1-2.5 years, age all | 0.23 | 0.00 | 0.01 | 0.93 | 159 | 62.8 (12.0) | 0.47 |
| ('Slow spindles density frontal', 'Thalamus') | dt between 1-2.5 years, age younger than 60 | -0.22 | 0.09 | -0.27 | 0.03 | 64 | 51.1 (7.4) | 0.55 |
| ('Slow spindles density frontal', 'Thalamus') | dt between 1-2.5 years, age between 60-70 | 0.39 | 0.01 | 0.36 | 0.01 | 48 | 65.0 (3.0) | 0.52 |
| ('Slow spindles density frontal', 'Thalamus') | dt between 1-2.5 years, age older than 70 | -0.06 | 0.70 | -0.01 | 0.96 | 47 | 76.7 (4.2) | 0.3 |
| ('Slow spindles density frontal', 'Thalamus') | dt between 2.5-7 years, age all | 0.16 | 0.01 | -0.02 | 0.79 | 259 | 60.4 (12.5) | 0.59 |
| ('Slow spindles density frontal', 'Thalamus') | dt between 2.5-7 years, age younger than 60 | -0.06 | 0.55 | -0.06 | 0.55 | 121 | 49.8 (8.4) | 0.64 |
| ('Slow spindles density frontal', 'Thalamus') | dt between 2.5-7 years, age between 60-70 | 0.03 | 0.79 | -0.01 | 0.92 | 80 | 65.0 (2.8) | 0.61 |
| ('Slow spindles density frontal', 'Thalamus') | dt between 2.5-7 years, age older than 70 | 0.15 | 0.25 | 0.10 | 0.46 | 58 | 76.3 (4.7) | 0.45 |
| ('Slow spindles density frontal', 'Thalamus') |  |  |  |  |  |  |  |  |
| ('Slow spindles density frontal', 'Hippocampus') | dt all, age all | 0.08 | 0.05 | -0.02 | 0.67 | 623 | 60.9 (12.5) | 0.55 |
| ('Slow spindles density frontal', 'Hippocampus') | dt all, age younger than 60 | -0.05 | 0.38 | -0.06 | 0.30 | 285 | 49.9 (7.9) | 0.61 |
| ('Slow spindles density frontal', 'Hippocampus') | dt all, age between 60-70 | 0.00 | 0.96 | -0.03 | 0.71 | 187 | 65.1 (2.9) | 0.58 |
| ('Slow spindles density frontal', 'Hippocampus') | dt all, age older than 70 | 0.05 | 0.52 | 0.00 | 0.99 | 151 | 76.6 (4.6) | 0.39 |
| ('Slow spindles density frontal', 'Hippocampus') | dt within 1 year, age all | 0.10 | 0.17 | 0.00 | 0.97 | 205 | 60.0 (12.8) | 0.56 |
| ('Slow spindles density frontal', 'Hippocampus') | dt within 1 year, age younger than 60 | -0.11 | 0.28 | -0.12 | 0.26 | 100 | 49.3 (7.5) | 0.62 |
| ('Slow spindles density frontal', 'Hippocampus') | dt within 1 year, age between 60-70 | 0.10 | 0.47 | 0.08 | 0.56 | 59 | 65.2 (2.9) | 0.58 |
| ('Slow spindles density frontal', 'Hippocampus') | dt within 1 year, age older than 70 | 0.15 | 0.32 | 0.05 | 0.75 | 46 | 76.8 (5.0) | 0.41 |
| ('Slow spindles density frontal', 'Hippocampus') | dt between 1-2.5 years, age all | 0.05 | 0.55 | -0.08 | 0.33 | 159 | 62.8 (12.0) | 0.47 |
| ('Slow spindles density frontal', 'Hippocampus') | dt between 1-2.5 years, age younger than 60 | -0.17 | 0.19 | -0.19 | 0.14 | 64 | 51.1 (7.4) | 0.55 |
| ('Slow spindles density frontal', 'Hippocampus') | dt between 1-2.5 years, age between 60-70 | 0.06 | 0.68 | 0.03 | 0.85 | 48 | 65.0 (3.0) | 0.52 |
| ('Slow spindles density frontal', 'Hippocampus') | dt between 1-2.5 years, age older than 70 | -0.17 | 0.27 | -0.20 | 0.20 | 47 | 76.7 (4.2) | 0.3 |
| ('Slow spindles density frontal', 'Hippocampus') | dt between 2.5-7 years, age all | 0.09 | 0.15 | 0.00 | 0.97 | 259 | 60.4 (12.5) | 0.59 |
| ('Slow spindles density frontal', 'Hippocampus') | dt between 2.5-7 years, age younger than 60 | 0.03 | 0.74 | 0.03 | 0.74 | 121 | 49.8 (8.4) | 0.64 |
| ('Slow spindles density frontal', 'Hippocampus') | dt between 2.5-7 years, age between 60-70 | -0.12 | 0.28 | -0.18 | 0.12 | 80 | 65.0 (2.8) | 0.61 |
| ('Slow spindles density frontal', 'Hippocampus') | dt between 2.5-7 years, age older than 70 | 0.09 | 0.50 | 0.08 | 0.57 | 58 | 76.3 (4.7) | 0.45 |
| ('Slow spindles density frontal', 'Hippocampus') |  |  |  |  |  |  |  |  |
| ('Fast spindles density central', 'Thalamus') | dt all, age all | 0.31 | 0.00 | 0.11 | 0.01 | 623 | 60.9 (12.5) | 0.55 |
| ('Fast spindles density central', 'Thalamus') | dt all, age younger than 60 | 0.05 | 0.40 | -0.01 | 0.81 | 285 | 49.9 (7.9) | 0.61 |
| ('Fast spindles density central', 'Thalamus') | dt all, age between 60-70 | 0.28 | 0.00 | 0.28 | 0.00 | 187 | 65.1 (2.9) | 0.58 |
| ('Fast spindles density central', 'Thalamus') | dt all, age older than 70 | 0.20 | 0.02 | 0.16 | 0.05 | 151 | 76.6 (4.6) | 0.39 |
| ('Fast spindles density central', 'Thalamus') | dt within 1 year, age all | 0.32 | 0.00 | 0.07 | 0.34 | 205 | 60.0 (12.8) | 0.56 |
| ('Fast spindles density central', 'Thalamus') | dt within 1 year, age younger than 60 | -0.05 | 0.65 | -0.07 | 0.51 | 100 | 49.3 (7.5) | 0.62 |
| ('Fast spindles density central', 'Thalamus') | dt within 1 year, age between 60-70 | 0.27 | 0.04 | 0.23 | 0.08 | 59 | 65.2 (2.9) | 0.58 |
| ('Fast spindles density central', 'Thalamus') | dt within 1 year, age older than 70 | 0.20 | 0.19 | 0.04 | 0.81 | 46 | 76.8 (5.0) | 0.41 |
| ('Fast spindles density central', 'Thalamus') | dt between 1-2.5 years, age all | 0.36 | 0.00 | 0.18 | 0.02 | 159 | 62.8 (12.0) | 0.47 |
| ('Fast spindles density central', 'Thalamus') | dt between 1-2.5 years, age younger than 60 | -0.01 | 0.91 | -0.08 | 0.53 | 64 | 51.1 (7.4) | 0.55 |
| ('Fast spindles density central', 'Thalamus') | dt between 1-2.5 years, age between 60-70 | 0.52 | 0.00 | 0.51 | 0.00 | 48 | 65.0 (3.0) | 0.52 |
| ('Fast spindles density central', 'Thalamus') | dt between 1-2.5 years, age older than 70 | 0.19 | 0.20 | 0.20 | 0.18 | 47 | 76.7 (4.2) | 0.3 |
| ('Fast spindles density central', 'Thalamus') | dt between 2.5-7 years, age all | 0.28 | 0.00 | 0.10 | 0.10 | 259 | 60.4 (12.5) | 0.59 |
| ('Fast spindles density central', 'Thalamus') | dt between 2.5-7 years, age younger than 60 | 0.15 | 0.10 | 0.04 | 0.70 | 121 | 49.8 (8.4) | 0.64 |
| ('Fast spindles density central', 'Thalamus') | dt between 2.5-7 years, age between 60-70 | 0.18 | 0.11 | 0.18 | 0.12 | 80 | 65.0 (2.8) | 0.61 |
| ('Fast spindles density central', 'Thalamus') | dt between 2.5-7 years, age older than 70 | 0.15 | 0.28 | 0.18 | 0.18 | 58 | 76.3 (4.7) | 0.45 |
| ('Fast spindles density central', 'Thalamus') |  |  |  |  |  |  |  |  |
| ('Fast spindles density central', 'Hippocampus') | dt all, age all | 0.17 | 0.00 | 0.06 | 0.11 | 623 | 60.9 (12.5) | 0.55 |
| ('Fast spindles density central', 'Hippocampus') | dt all, age younger than 60 | 0.08 | 0.20 | 0.04 | 0.45 | 285 | 49.9 (7.9) | 0.61 |
| ('Fast spindles density central', 'Hippocampus') | dt all, age between 60-70 | 0.11 | 0.12 | 0.10 | 0.16 | 187 | 65.1 (2.9) | 0.58 |
| ('Fast spindles density central', 'Hippocampus') | dt all, age older than 70 | 0.09 | 0.27 | 0.04 | 0.64 | 151 | 76.6 (4.6) | 0.39 |
| ('Fast spindles density central', 'Hippocampus') | dt within 1 year, age all | 0.18 | 0.01 | 0.05 | 0.44 | 205 | 60.0 (12.8) | 0.56 |
| ('Fast spindles density central', 'Hippocampus') | dt within 1 year, age younger than 60 | 0.06 | 0.57 | 0.04 | 0.68 | 100 | 49.3 (7.5) | 0.62 |
| ('Fast spindles density central', 'Hippocampus') | dt within 1 year, age between 60-70 | 0.25 | 0.06 | 0.22 | 0.10 | 59 | 65.2 (2.9) | 0.58 |
| ('Fast spindles density central', 'Hippocampus') | dt within 1 year, age older than 70 | 0.02 | 0.90 | -0.13 | 0.39 | 46 | 76.8 (5.0) | 0.41 |
| ('Fast spindles density central', 'Hippocampus') | dt between 1-2.5 years, age all | 0.08 | 0.30 | -0.04 | 0.60 | 159 | 62.8 (12.0) | 0.47 |
| ('Fast spindles density central', 'Hippocampus') | dt between 1-2.5 years, age younger than 60 | -0.10 | 0.42 | -0.12 | 0.35 | 64 | 51.1 (7.4) | 0.55 |
| ('Fast spindles density central', 'Hippocampus') | dt between 1-2.5 years, age between 60-70 | 0.09 | 0.55 | 0.06 | 0.71 | 48 | 65.0 (3.0) | 0.52 |
| ('Fast spindles density central', 'Hippocampus') | dt between 1-2.5 years, age older than 70 | 0.01 | 0.96 | -0.05 | 0.75 | 47 | 76.7 (4.2) | 0.3 |
| ('Fast spindles density central', 'Hippocampus') | dt between 2.5-7 years, age all | 0.21 | 0.00 | 0.13 | 0.04 | 259 | 60.4 (12.5) | 0.59 |
| ('Fast spindles density central', 'Hippocampus') | dt between 2.5-7 years, age younger than 60 | 0.18 | 0.05 | 0.14 | 0.14 | 121 | 49.8 (8.4) | 0.64 |
| ('Fast spindles density central', 'Hippocampus') | dt between 2.5-7 years, age between 60-70 | 0.05 | 0.65 | 0.06 | 0.61 | 80 | 65.0 (2.8) | 0.61 |
| ('Fast spindles density central', 'Hippocampus') | dt between 2.5-7 years, age older than 70 | 0.20 | 0.14 | 0.20 | 0.14 | 58 | 76.3 (4.7) | 0.45 |
| ('Fast spindles density central', 'Hippocampus') |  |  |  |  |  |  |  |  |
| ('Percentage R', 'Isthmuscingulate') | dt all, age all | 0.01 | 0.74 | 0.01 | 0.89 | 623 | 60.9 (12.5) | 0.55 |
| ('Percentage R', 'Isthmuscingulate') | dt all, age younger than 60 | -0.02 | 0.69 | -0.02 | 0.70 | 285 | 49.9 (7.9) | 0.61 |
| ('Percentage R', 'Isthmuscingulate') | dt all, age between 60-70 | 0.01 | 0.93 | 0.00 | 1.00 | 187 | 65.1 (2.9) | 0.58 |
| ('Percentage R', 'Isthmuscingulate') | dt all, age older than 70 | 0.07 | 0.38 | 0.07 | 0.43 | 151 | 76.6 (4.6) | 0.39 |
| ('Percentage R', 'Isthmuscingulate') | dt within 1 year, age all | 0.05 | 0.48 | 0.05 | 0.50 | 205 | 60.0 (12.8) | 0.56 |
| ('Percentage R', 'Isthmuscingulate') | dt within 1 year, age younger than 60 | 0.06 | 0.53 | 0.07 | 0.52 | 100 | 49.3 (7.5) | 0.62 |
| ('Percentage R', 'Isthmuscingulate') | dt within 1 year, age between 60-70 | -0.02 | 0.88 | -0.05 | 0.73 | 59 | 65.2 (2.9) | 0.58 |
| ('Percentage R', 'Isthmuscingulate') | dt within 1 year, age older than 70 | 0.09 | 0.53 | 0.09 | 0.57 | 46 | 76.8 (5.0) | 0.41 |
| ('Percentage R', 'Isthmuscingulate') | dt between 1-2.5 years, age all | -0.02 | 0.76 | -0.02 | 0.81 | 159 | 62.8 (12.0) | 0.47 |
| ('Percentage R', 'Isthmuscingulate') | dt between 1-2.5 years, age younger than 60 | -0.16 | 0.20 | -0.17 | 0.19 | 64 | 51.1 (7.4) | 0.55 |
| ('Percentage R', 'Isthmuscingulate') | dt between 1-2.5 years, age between 60-70 | -0.02 | 0.89 | -0.02 | 0.87 | 48 | 65.0 (3.0) | 0.52 |
| ('Percentage R', 'Isthmuscingulate') | dt between 1-2.5 years, age older than 70 | 0.15 | 0.30 | 0.23 | 0.14 | 47 | 76.7 (4.2) | 0.3 |
| ('Percentage R', 'Isthmuscingulate') | dt between 2.5-7 years, age all | 0.01 | 0.91 | -0.01 | 0.84 | 259 | 60.4 (12.5) | 0.59 |
| ('Percentage R', 'Isthmuscingulate') | dt between 2.5-7 years, age younger than 60 | -0.01 | 0.92 | -0.01 | 0.88 | 121 | 49.8 (8.4) | 0.64 |
| ('Percentage R', 'Isthmuscingulate') | dt between 2.5-7 years, age between 60-70 | 0.03 | 0.78 | -0.01 | 0.90 | 80 | 65.0 (2.8) | 0.61 |
| ('Percentage R', 'Isthmuscingulate') | dt between 2.5-7 years, age older than 70 | -0.04 | 0.79 | -0.05 | 0.70 | 58 | 76.3 (4.7) | 0.45 |
| ('Percentage R', 'Isthmuscingulate') |  |  |  |  |  |  |  |  |
| ('Percentage R', 'Amygdala') | dt all, age all | 0.02 | 0.55 | -0.02 | 0.71 | 623 | 60.9 (12.5) | 0.55 |
| ('Percentage R', 'Amygdala') | dt all, age younger than 60 | -0.05 | 0.38 | -0.05 | 0.37 | 285 | 49.9 (7.9) | 0.61 |
| ('Percentage R', 'Amygdala') | dt all, age between 60-70 | 0.05 | 0.49 | 0.04 | 0.55 | 187 | 65.1 (2.9) | 0.58 |
| ('Percentage R', 'Amygdala') | dt all, age older than 70 | -0.05 | 0.52 | -0.04 | 0.63 | 151 | 76.6 (4.6) | 0.39 |
| ('Percentage R', 'Amygdala') | dt within 1 year, age all | 0.09 | 0.22 | 0.06 | 0.40 | 205 | 60.0 (12.8) | 0.56 |
| ('Percentage R', 'Amygdala') | dt within 1 year, age younger than 60 | -0.06 | 0.59 | -0.06 | 0.56 | 100 | 49.3 (7.5) | 0.62 |
| ('Percentage R', 'Amygdala') | dt within 1 year, age between 60-70 | 0.13 | 0.33 | 0.14 | 0.29 | 59 | 65.2 (2.9) | 0.58 |
| ('Percentage R', 'Amygdala') | dt within 1 year, age older than 70 | 0.22 | 0.14 | 0.16 | 0.29 | 46 | 76.8 (5.0) | 0.41 |
| ('Percentage R', 'Amygdala') | dt between 1-2.5 years, age all | -0.06 | 0.49 | -0.08 | 0.34 | 159 | 62.8 (12.0) | 0.47 |
| ('Percentage R', 'Amygdala') | dt between 1-2.5 years, age younger than 60 | -0.06 | 0.62 | -0.05 | 0.68 | 64 | 51.1 (7.4) | 0.55 |
| ('Percentage R', 'Amygdala') | dt between 1-2.5 years, age between 60-70 | 0.05 | 0.73 | 0.02 | 0.88 | 48 | 65.0 (3.0) | 0.52 |
| ('Percentage R', 'Amygdala') | dt between 1-2.5 years, age older than 70 | -0.24 | 0.10 | -0.10 | 0.53 | 47 | 76.7 (4.2) | 0.3 |
| ('Percentage R', 'Amygdala') | dt between 2.5-7 years, age all | 0.04 | 0.56 | -0.03 | 0.65 | 259 | 60.4 (12.5) | 0.59 |
| ('Percentage R', 'Amygdala') | dt between 2.5-7 years, age younger than 60 | -0.04 | 0.65 | -0.04 | 0.64 | 121 | 49.8 (8.4) | 0.64 |
| ('Percentage R', 'Amygdala') | dt between 2.5-7 years, age between 60-70 | -0.02 | 0.87 | -0.07 | 0.55 | 80 | 65.0 (2.8) | 0.61 |
| ('Percentage R', 'Amygdala') | dt between 2.5-7 years, age older than 70 | -0.03 | 0.84 | -0.02 | 0.87 | 58 | 76.3 (4.7) | 0.45 |
| ('Percentage R', 'Amygdala') |  |  |  |  |  |  |  |  |
| ('Percentage R', 'Brainstem') | dt all, age all | 0.02 | 0.58 | 0.02 | 0.55 | 623 | 60.9 (12.5) | 0.55 |
| ('Percentage R', 'Brainstem') | dt all, age younger than 60 | -0.13 | 0.03 | -0.12 | 0.04 | 285 | 49.9 (7.9) | 0.61 |
| ('Percentage R', 'Brainstem') | dt all, age between 60-70 | 0.14 | 0.06 | 0.16 | 0.03 | 187 | 65.1 (2.9) | 0.58 |
| ('Percentage R', 'Brainstem') | dt all, age older than 70 | 0.13 | 0.10 | 0.16 | 0.05 | 151 | 76.6 (4.6) | 0.39 |
| ('Percentage R', 'Brainstem') | dt within 1 year, age all | 0.05 | 0.49 | 0.04 | 0.59 | 205 | 60.0 (12.8) | 0.56 |
| ('Percentage R', 'Brainstem') | dt within 1 year, age younger than 60 | -0.24 | 0.02 | -0.24 | 0.02 | 100 | 49.3 (7.5) | 0.62 |
| ('Percentage R', 'Brainstem') | dt within 1 year, age between 60-70 | 0.18 | 0.17 | 0.21 | 0.12 | 59 | 65.2 (2.9) | 0.58 |
| ('Percentage R', 'Brainstem') | dt within 1 year, age older than 70 | 0.38 | 0.01 | 0.32 | 0.03 | 46 | 76.8 (5.0) | 0.41 |
| ('Percentage R', 'Brainstem') | dt between 1-2.5 years, age all | 0.04 | 0.61 | 0.05 | 0.51 | 159 | 62.8 (12.0) | 0.47 |
| ('Percentage R', 'Brainstem') | dt between 1-2.5 years, age younger than 60 | -0.27 | 0.03 | -0.25 | 0.05 | 64 | 51.1 (7.4) | 0.55 |
| ('Percentage R', 'Brainstem') | dt between 1-2.5 years, age between 60-70 | 0.43 | 0.00 | 0.43 | 0.00 | 48 | 65.0 (3.0) | 0.52 |
| ('Percentage R', 'Brainstem') | dt between 1-2.5 years, age older than 70 | 0.03 | 0.86 | 0.06 | 0.67 | 47 | 76.7 (4.2) | 0.3 |
| ('Percentage R', 'Brainstem') | dt between 2.5-7 years, age all | 0.00 | 0.95 | 0.00 | 0.97 | 259 | 60.4 (12.5) | 0.59 |
| ('Percentage R', 'Brainstem') | dt between 2.5-7 years, age younger than 60 | 0.01 | 0.95 | 0.01 | 0.93 | 121 | 49.8 (8.4) | 0.64 |
| ('Percentage R', 'Brainstem') | dt between 2.5-7 years, age between 60-70 | -0.09 | 0.43 | -0.12 | 0.30 | 80 | 65.0 (2.8) | 0.61 |
| ('Percentage R', 'Brainstem') | dt between 2.5-7 years, age older than 70 | 0.06 | 0.64 | 0.09 | 0.50 | 58 | 76.3 (4.7) | 0.45 |
| ('Percentage R', 'Brainstem') |  |  |  |  |  |  |  |  |
| ('Mean alpha during W', 'Thalamus') | dt all, age all | 0.01 | 0.73 | 0.01 | 0.81 | 623 | 60.9 (12.5) | 0.55 |
| ('Mean alpha during W', 'Thalamus') | dt all, age younger than 60 | 0.13 | 0.02 | 0.08 | 0.17 | 285 | 49.9 (7.9) | 0.61 |
| ('Mean alpha during W', 'Thalamus') | dt all, age between 60-70 | 0.03 | 0.71 | 0.00 | 0.95 | 187 | 65.1 (2.9) | 0.58 |
| ('Mean alpha during W', 'Thalamus') | dt all, age older than 70 | 0.09 | 0.26 | 0.05 | 0.57 | 151 | 76.6 (4.6) | 0.39 |
| ('Mean alpha during W', 'Thalamus') | dt within 1 year, age all | 0.01 | 0.91 | 0.00 | 0.96 | 205 | 60.0 (12.8) | 0.56 |
| ('Mean alpha during W', 'Thalamus') | dt within 1 year, age younger than 60 | 0.08 | 0.44 | 0.07 | 0.49 | 100 | 49.3 (7.5) | 0.62 |
| ('Mean alpha during W', 'Thalamus') | dt within 1 year, age between 60-70 | 0.03 | 0.84 | -0.05 | 0.71 | 59 | 65.2 (2.9) | 0.58 |
| ('Mean alpha during W', 'Thalamus') | dt within 1 year, age older than 70 | 0.03 | 0.84 | -0.03 | 0.85 | 46 | 76.8 (5.0) | 0.41 |
| ('Mean alpha during W', 'Thalamus') | dt between 1-2.5 years, age all | 0.13 | 0.10 | 0.09 | 0.25 | 159 | 62.8 (12.0) | 0.47 |
| ('Mean alpha during W', 'Thalamus') | dt between 1-2.5 years, age younger than 60 | 0.27 | 0.03 | 0.09 | 0.51 | 64 | 51.1 (7.4) | 0.55 |
| ('Mean alpha during W', 'Thalamus') | dt between 1-2.5 years, age between 60-70 | 0.07 | 0.65 | 0.05 | 0.72 | 48 | 65.0 (3.0) | 0.52 |
| ('Mean alpha during W', 'Thalamus') | dt between 1-2.5 years, age older than 70 | 0.33 | 0.02 | 0.23 | 0.13 | 47 | 76.7 (4.2) | 0.3 |
| ('Mean alpha during W', 'Thalamus') | dt between 2.5-7 years, age all | -0.02 | 0.72 | 0.03 | 0.66 | 259 | 60.4 (12.5) | 0.59 |
| ('Mean alpha during W', 'Thalamus') | dt between 2.5-7 years, age younger than 60 | 0.12 | 0.19 | 0.08 | 0.38 | 121 | 49.8 (8.4) | 0.64 |
| ('Mean alpha during W', 'Thalamus') | dt between 2.5-7 years, age between 60-70 | 0.02 | 0.83 | 0.03 | 0.82 | 80 | 65.0 (2.8) | 0.61 |
| ('Mean alpha during W', 'Thalamus') | dt between 2.5-7 years, age older than 70 | -0.01 | 0.96 | -0.08 | 0.54 | 58 | 76.3 (4.7) | 0.45 |
| ('Mean alpha during W', 'Thalamus') |  |  |  |  |  |  |  |  |
| ('Mean alpha during W', 'Total ventricle volume') | dt all, age all | -0.04 | 0.36 | -0.04 | 0.32 | 623 | 60.9 (12.5) | 0.55 |
| ('Mean alpha during W', 'Total ventricle volume') | dt all, age younger than 60 | -0.04 | 0.46 | -0.01 | 0.93 | 285 | 49.9 (7.9) | 0.61 |
| ('Mean alpha during W', 'Total ventricle volume') | dt all, age between 60-70 | -0.09 | 0.22 | -0.07 | 0.35 | 187 | 65.1 (2.9) | 0.58 |
| ('Mean alpha during W', 'Total ventricle volume') | dt all, age older than 70 | -0.01 | 0.95 | 0.00 | 0.98 | 151 | 76.6 (4.6) | 0.39 |
| ('Mean alpha during W', 'Total ventricle volume') | dt within 1 year, age all | -0.06 | 0.40 | -0.07 | 0.33 | 205 | 60.0 (12.8) | 0.56 |
| ('Mean alpha during W', 'Total ventricle volume') | dt within 1 year, age younger than 60 | -0.02 | 0.84 | -0.02 | 0.87 | 100 | 49.3 (7.5) | 0.62 |
| ('Mean alpha during W', 'Total ventricle volume') | dt within 1 year, age between 60-70 | -0.12 | 0.36 | -0.07 | 0.58 | 59 | 65.2 (2.9) | 0.58 |
| ('Mean alpha during W', 'Total ventricle volume') | dt within 1 year, age older than 70 | 0.04 | 0.79 | 0.14 | 0.37 | 46 | 76.8 (5.0) | 0.41 |
| ('Mean alpha during W', 'Total ventricle volume') | dt between 1-2.5 years, age all | -0.12 | 0.13 | -0.09 | 0.27 | 159 | 62.8 (12.0) | 0.47 |
| ('Mean alpha during W', 'Total ventricle volume') | dt between 1-2.5 years, age younger than 60 | -0.26 | 0.04 | -0.13 | 0.32 | 64 | 51.1 (7.4) | 0.55 |
| ('Mean alpha during W', 'Total ventricle volume') | dt between 1-2.5 years, age between 60-70 | -0.11 | 0.44 | -0.10 | 0.50 | 48 | 65.0 (3.0) | 0.52 |
| ('Mean alpha during W', 'Total ventricle volume') | dt between 1-2.5 years, age older than 70 | -0.20 | 0.18 | -0.16 | 0.28 | 47 | 76.7 (4.2) | 0.3 |
| ('Mean alpha during W', 'Total ventricle volume') | dt between 2.5-7 years, age all | 0.04 | 0.53 | 0.01 | 0.83 | 259 | 60.4 (12.5) | 0.59 |
| ('Mean alpha during W', 'Total ventricle volume') | dt between 2.5-7 years, age younger than 60 | 0.01 | 0.93 | 0.04 | 0.67 | 121 | 49.8 (8.4) | 0.64 |
| ('Mean alpha during W', 'Total ventricle volume') | dt between 2.5-7 years, age between 60-70 | -0.14 | 0.22 | -0.15 | 0.19 | 80 | 65.0 (2.8) | 0.61 |
| ('Mean alpha during W', 'Total ventricle volume') | dt between 2.5-7 years, age older than 70 | 0.09 | 0.48 | 0.13 | 0.32 | 58 | 76.3 (4.7) | 0.45 |
| ('Mean alpha during W', 'Total ventricle volume') |  |  |  |  |  |  |  |  |
| ('Total slow and delta power', 'MMSE') | dt all, age all | -0.01 | 0.86 | -0.09 | 0.26 | 160 | 65.5 (11.4) | 0.46 |
| ('Total slow and delta power', 'MMSE') | dt all, age younger than 60 | 0.01 | 0.96 | 0.00 | 0.98 | 48 | 51.4 (6.0) | 0.58 |
| ('Total slow and delta power', 'MMSE') | dt all, age between 60-70 | -0.17 | 0.22 | -0.14 | 0.34 | 51 | 65.3 (2.9) | 0.51 |
| ('Total slow and delta power', 'MMSE') | dt all, age older than 70 | -0.25 | 0.05 | -0.25 | 0.06 | 61 | 76.7 (4.6) | 0.33 |
| ('Total slow and delta power', 'MMSE') | dt within 1 year, age all | 0.02 | 0.91 | 0.03 | 0.85 | 36 | 66.8 (12.3) | 0.42 |
| ('Total slow and delta power', 'MMSE') | dt within 1 year, age younger than 60 | 0.28 | 0.47 | 0.22 | 0.64 | 9 | 48.7 (4.0) | 0.56 |
| ('Total slow and delta power', 'MMSE') | dt within 1 year, age between 60-70 | -0.80 | 0.01 | -0.84 | 0.01 | 10 | 65.8 (2.9) | 0.3 |
| ('Total slow and delta power', 'MMSE') | dt within 1 year, age older than 70 | 0.12 | 0.66 | 0.19 | 0.50 | 17 | 76.9 (4.7) | 0.41 |
| ('Total slow and delta power', 'MMSE') | dt between 1-2.5 years, age all | 0.01 | 0.96 | -0.12 | 0.45 | 48 | 66.8 (11.7) | 0.4 |
| ('Total slow and delta power', 'MMSE') | dt between 1-2.5 years, age younger than 60 | 0.06 | 0.85 | 0.05 | 0.89 | 13 | 52.3 (7.4) | 0.54 |
| ('Total slow and delta power', 'MMSE') | dt between 1-2.5 years, age between 60-70 | -0.22 | 0.47 | -0.12 | 0.71 | 13 | 64.1 (3.5) | 0.54 |
| ('Total slow and delta power', 'MMSE') | dt between 1-2.5 years, age older than 70 | -0.16 | 0.47 | -0.28 | 0.24 | 22 | 77.0 (4.9) | 0.23 |
| ('Total slow and delta power', 'MMSE') | dt between 2.5-7 years, age all | -0.02 | 0.87 | -0.11 | 0.36 | 76 | 64.0 (10.6) | 0.53 |
| ('Total slow and delta power', 'MMSE') | dt between 2.5-7 years, age younger than 60 | -0.14 | 0.50 | -0.17 | 0.44 | 26 | 51.9 (5.8) | 0.62 |
| ('Total slow and delta power', 'MMSE') | dt between 2.5-7 years, age between 60-70 | 0.14 | 0.48 | 0.14 | 0.49 | 28 | 65.7 (2.4) | 0.57 |
| ('Total slow and delta power', 'MMSE') | dt between 2.5-7 years, age older than 70 | -0.54 | 0.01 | -0.57 | 0.01 | 22 | 76.1 (4.5) | 0.36 |
| ('Total slow and delta power', 'MMSE') |  |  |  |  |  |  |  |  |
| ('SO rate frontal', 'MMSE') | dt all, age all | -0.03 | 0.70 | -0.09 | 0.27 | 160 | 65.5 (11.4) | 0.46 |
| ('SO rate frontal', 'MMSE') | dt all, age younger than 60 | -0.05 | 0.75 | -0.07 | 0.65 | 48 | 51.4 (6.0) | 0.58 |
| ('SO rate frontal', 'MMSE') | dt all, age between 60-70 | -0.11 | 0.46 | -0.06 | 0.68 | 51 | 65.3 (2.9) | 0.51 |
| ('SO rate frontal', 'MMSE') | dt all, age older than 70 | -0.24 | 0.06 | -0.24 | 0.06 | 61 | 76.7 (4.6) | 0.33 |
| ('SO rate frontal', 'MMSE') | dt within 1 year, age all | 0.09 | 0.59 | 0.15 | 0.41 | 36 | 66.8 (12.3) | 0.42 |
| ('SO rate frontal', 'MMSE') | dt within 1 year, age younger than 60 | 0.35 | 0.36 | 0.30 | 0.51 | 9 | 48.7 (4.0) | 0.56 |
| ('SO rate frontal', 'MMSE') | dt within 1 year, age between 60-70 | -0.35 | 0.32 | 0.00 | 0.99 | 10 | 65.8 (2.9) | 0.3 |
| ('SO rate frontal', 'MMSE') | dt within 1 year, age older than 70 | 0.07 | 0.79 | 0.12 | 0.66 | 17 | 76.9 (4.7) | 0.41 |
| ('SO rate frontal', 'MMSE') | dt between 1-2.5 years, age all | -0.03 | 0.83 | -0.13 | 0.39 | 48 | 66.8 (11.7) | 0.4 |
| ('SO rate frontal', 'MMSE') | dt between 1-2.5 years, age younger than 60 | -0.18 | 0.55 | -0.10 | 0.77 | 13 | 52.3 (7.4) | 0.54 |
| ('SO rate frontal', 'MMSE') | dt between 1-2.5 years, age between 60-70 | -0.30 | 0.32 | -0.23 | 0.49 | 13 | 64.1 (3.5) | 0.54 |
| ('SO rate frontal', 'MMSE') | dt between 1-2.5 years, age older than 70 | 0.03 | 0.88 | 0.11 | 0.65 | 22 | 77.0 (4.9) | 0.23 |
| ('SO rate frontal', 'MMSE') | dt between 2.5-7 years, age all | -0.09 | 0.45 | -0.16 | 0.17 | 76 | 64.0 (10.6) | 0.53 |
| ('SO rate frontal', 'MMSE') | dt between 2.5-7 years, age younger than 60 | -0.19 | 0.34 | -0.20 | 0.36 | 26 | 51.9 (5.8) | 0.62 |
| ('SO rate frontal', 'MMSE') | dt between 2.5-7 years, age between 60-70 | 0.12 | 0.55 | 0.14 | 0.51 | 28 | 65.7 (2.4) | 0.57 |
| ('SO rate frontal', 'MMSE') | dt between 2.5-7 years, age older than 70 | -0.51 | 0.02 | -0.54 | 0.01 | 22 | 76.1 (4.5) | 0.36 |
| ('SO rate frontal', 'MMSE') |  |  |  |  |  |  |  |  |
| ('Anterior cortex', 'MMSE') | dt all, age all | 0.03 | 0.70 | -0.04 | 0.60 | 160 | 65.5 (11.4) | 0.46 |
| ('Anterior cortex', 'MMSE') | dt all, age younger than 60 | -0.20 | 0.17 | -0.19 | 0.20 | 48 | 51.4 (6.0) | 0.58 |
| ('Anterior cortex', 'MMSE') | dt all, age between 60-70 | -0.08 | 0.56 | -0.11 | 0.47 | 51 | 65.3 (2.9) | 0.51 |
| ('Anterior cortex', 'MMSE') | dt all, age older than 70 | 0.07 | 0.57 | 0.04 | 0.79 | 61 | 76.7 (4.6) | 0.33 |
| ('Anterior cortex', 'MMSE') | dt within 1 year, age all | 0.07 | 0.69 | -0.04 | 0.80 | 36 | 66.8 (12.3) | 0.42 |
| ('Anterior cortex', 'MMSE') | dt within 1 year, age younger than 60 | -0.71 | 0.03 | -0.55 | 0.20 | 9 | 48.7 (4.0) | 0.56 |
| ('Anterior cortex', 'MMSE') | dt within 1 year, age between 60-70 | -0.07 | 0.84 | 0.00 | 1.00 | 10 | 65.8 (2.9) | 0.3 |
| ('Anterior cortex', 'MMSE') | dt within 1 year, age older than 70 | 0.15 | 0.57 | 0.05 | 0.85 | 17 | 76.9 (4.7) | 0.41 |
| ('Anterior cortex', 'MMSE') | dt between 1-2.5 years, age all | 0.08 | 0.59 | 0.03 | 0.83 | 48 | 66.8 (11.7) | 0.4 |
| ('Anterior cortex', 'MMSE') | dt between 1-2.5 years, age younger than 60 | -0.24 | 0.44 | -0.28 | 0.40 | 13 | 52.3 (7.4) | 0.54 |
| ('Anterior cortex', 'MMSE') | dt between 1-2.5 years, age between 60-70 | 0.12 | 0.70 | 0.12 | 0.73 | 13 | 64.1 (3.5) | 0.54 |
| ('Anterior cortex', 'MMSE') | dt between 1-2.5 years, age older than 70 | 0.10 | 0.67 | 0.08 | 0.74 | 22 | 77.0 (4.9) | 0.23 |
| ('Anterior cortex', 'MMSE') | dt between 2.5-7 years, age all | 0.02 | 0.89 | -0.04 | 0.72 | 76 | 64.0 (10.6) | 0.53 |
| ('Anterior cortex', 'MMSE') | dt between 2.5-7 years, age younger than 60 | 0.09 | 0.65 | 0.08 | 0.71 | 26 | 51.9 (5.8) | 0.62 |
| ('Anterior cortex', 'MMSE') | dt between 2.5-7 years, age between 60-70 | -0.10 | 0.63 | -0.13 | 0.53 | 28 | 65.7 (2.4) | 0.57 |
| ('Anterior cortex', 'MMSE') | dt between 2.5-7 years, age older than 70 | -0.04 | 0.85 | -0.06 | 0.80 | 22 | 76.1 (4.5) | 0.36 |
| ('Anterior cortex', 'MMSE') |  |  |  |  |  |  |  |  |
| ('Thalamus', 'MMSE') | dt all, age all | 0.21 | 0.01 | 0.06 | 0.43 | 160 | 65.5 (11.4) | 0.46 |
| ('Thalamus', 'MMSE') | dt all, age younger than 60 | -0.03 | 0.85 | 0.10 | 0.50 | 48 | 51.4 (6.0) | 0.58 |
| ('Thalamus', 'MMSE') | dt all, age between 60-70 | -0.01 | 0.94 | 0.00 | 1.00 | 51 | 65.3 (2.9) | 0.51 |
| ('Thalamus', 'MMSE') | dt all, age older than 70 | 0.17 | 0.18 | 0.18 | 0.16 | 61 | 76.7 (4.6) | 0.33 |
| ('Thalamus', 'MMSE') | dt within 1 year, age all | 0.17 | 0.32 | 0.08 | 0.65 | 36 | 66.8 (12.3) | 0.42 |
| ('Thalamus', 'MMSE') | dt within 1 year, age younger than 60 | -0.48 | 0.19 | -0.30 | 0.52 | 9 | 48.7 (4.0) | 0.56 |
| ('Thalamus', 'MMSE') | dt within 1 year, age between 60-70 | -0.24 | 0.50 | -0.11 | 0.79 | 10 | 65.8 (2.9) | 0.3 |
| ('Thalamus', 'MMSE') | dt within 1 year, age older than 70 | 0.33 | 0.20 | 0.31 | 0.26 | 17 | 76.9 (4.7) | 0.41 |
| ('Thalamus', 'MMSE') | dt between 1-2.5 years, age all | 0.15 | 0.31 | 0.03 | 0.86 | 48 | 66.8 (11.7) | 0.4 |
| ('Thalamus', 'MMSE') | dt between 1-2.5 years, age younger than 60 | -0.02 | 0.96 | 0.14 | 0.68 | 13 | 52.3 (7.4) | 0.54 |
| ('Thalamus', 'MMSE') | dt between 1-2.5 years, age between 60-70 | -0.14 | 0.64 | -0.08 | 0.80 | 13 | 64.1 (3.5) | 0.54 |
| ('Thalamus', 'MMSE') | dt between 1-2.5 years, age older than 70 | 0.14 | 0.53 | 0.11 | 0.65 | 22 | 77.0 (4.9) | 0.23 |
| ('Thalamus', 'MMSE') | dt between 2.5-7 years, age all | 0.28 | 0.01 | 0.12 | 0.31 | 76 | 64.0 (10.6) | 0.53 |
| ('Thalamus', 'MMSE') | dt between 2.5-7 years, age younger than 60 | 0.24 | 0.24 | 0.14 | 0.51 | 26 | 51.9 (5.8) | 0.62 |
| ('Thalamus', 'MMSE') | dt between 2.5-7 years, age between 60-70 | 0.26 | 0.18 | 0.24 | 0.24 | 28 | 65.7 (2.4) | 0.57 |
| ('Thalamus', 'MMSE') | dt between 2.5-7 years, age older than 70 | 0.13 | 0.57 | 0.18 | 0.44 | 22 | 76.1 (4.5) | 0.36 |
| ('Thalamus', 'MMSE') |  |  |  |  |  |  |  |  |
| ('Slow spindles density frontal', 'MMSE') | dt all, age all | 0.17 | 0.03 | 0.10 | 0.20 | 160 | 65.5 (11.4) | 0.46 |
| ('Slow spindles density frontal', 'MMSE') | dt all, age younger than 60 | -0.05 | 0.75 | -0.05 | 0.76 | 48 | 51.4 (6.0) | 0.58 |
| ('Slow spindles density frontal', 'MMSE') | dt all, age between 60-70 | 0.27 | 0.06 | 0.30 | 0.04 | 51 | 65.3 (2.9) | 0.51 |
| ('Slow spindles density frontal', 'MMSE') | dt all, age older than 70 | 0.09 | 0.47 | 0.07 | 0.62 | 61 | 76.7 (4.6) | 0.33 |
| ('Slow spindles density frontal', 'MMSE') | dt within 1 year, age all | 0.15 | 0.38 | 0.12 | 0.51 | 36 | 66.8 (12.3) | 0.42 |
| ('Slow spindles density frontal', 'MMSE') | dt within 1 year, age younger than 60 | -0.37 | 0.32 | -0.19 | 0.68 | 9 | 48.7 (4.0) | 0.56 |
| ('Slow spindles density frontal', 'MMSE') | dt within 1 year, age between 60-70 | 0.07 | 0.85 | 0.02 | 0.96 | 10 | 65.8 (2.9) | 0.3 |
| ('Slow spindles density frontal', 'MMSE') | dt within 1 year, age older than 70 | 0.18 | 0.49 | 0.14 | 0.62 | 17 | 76.9 (4.7) | 0.41 |
| ('Slow spindles density frontal', 'MMSE') | dt between 1-2.5 years, age all | 0.22 | 0.13 | 0.16 | 0.29 | 48 | 66.8 (11.7) | 0.4 |
| ('Slow spindles density frontal', 'MMSE') | dt between 1-2.5 years, age younger than 60 | -0.25 | 0.41 | -0.16 | 0.63 | 13 | 52.3 (7.4) | 0.54 |
| ('Slow spindles density frontal', 'MMSE') | dt between 1-2.5 years, age between 60-70 | 0.37 | 0.21 | 0.43 | 0.18 | 13 | 64.1 (3.5) | 0.54 |
| ('Slow spindles density frontal', 'MMSE') | dt between 1-2.5 years, age older than 70 | 0.25 | 0.27 | 0.23 | 0.33 | 22 | 77.0 (4.9) | 0.23 |
| ('Slow spindles density frontal', 'MMSE') | dt between 2.5-7 years, age all | 0.19 | 0.09 | 0.09 | 0.43 | 76 | 64.0 (10.6) | 0.53 |
| ('Slow spindles density frontal', 'MMSE') | dt between 2.5-7 years, age younger than 60 | 0.14 | 0.51 | 0.18 | 0.40 | 26 | 51.9 (5.8) | 0.62 |
| ('Slow spindles density frontal', 'MMSE') | dt between 2.5-7 years, age between 60-70 | 0.35 | 0.07 | 0.37 | 0.06 | 28 | 65.7 (2.4) | 0.57 |
| ('Slow spindles density frontal', 'MMSE') | dt between 2.5-7 years, age older than 70 | -0.01 | 0.97 | -0.02 | 0.92 | 22 | 76.1 (4.5) | 0.36 |
| ('Slow spindles density frontal', 'MMSE') |  |  |  |  |  |  |  |  |
| ('Fast spindles density central', 'MMSE') | dt all, age all | 0.20 | 0.01 | 0.10 | 0.20 | 160 | 65.5 (11.4) | 0.46 |
| ('Fast spindles density central', 'MMSE') | dt all, age younger than 60 | 0.12 | 0.42 | 0.15 | 0.31 | 48 | 51.4 (6.0) | 0.58 |
| ('Fast spindles density central', 'MMSE') | dt all, age between 60-70 | 0.11 | 0.43 | 0.12 | 0.43 | 51 | 65.3 (2.9) | 0.51 |
| ('Fast spindles density central', 'MMSE') | dt all, age older than 70 | 0.17 | 0.20 | 0.17 | 0.21 | 61 | 76.7 (4.6) | 0.33 |
| ('Fast spindles density central', 'MMSE') | dt within 1 year, age all | 0.27 | 0.12 | 0.27 | 0.12 | 36 | 66.8 (12.3) | 0.42 |
| ('Fast spindles density central', 'MMSE') | dt within 1 year, age younger than 60 | 0.39 | 0.29 | 0.29 | 0.53 | 9 | 48.7 (4.0) | 0.56 |
| ('Fast spindles density central', 'MMSE') | dt within 1 year, age between 60-70 | -0.21 | 0.57 | -0.21 | 0.61 | 10 | 65.8 (2.9) | 0.3 |
| ('Fast spindles density central', 'MMSE') | dt within 1 year, age older than 70 | 0.29 | 0.26 | 0.33 | 0.23 | 17 | 76.9 (4.7) | 0.41 |
| ('Fast spindles density central', 'MMSE') | dt between 1-2.5 years, age all | 0.24 | 0.09 | 0.18 | 0.23 | 48 | 66.8 (11.7) | 0.4 |
| ('Fast spindles density central', 'MMSE') | dt between 1-2.5 years, age younger than 60 | 0.13 | 0.67 | 0.20 | 0.55 | 13 | 52.3 (7.4) | 0.54 |
| ('Fast spindles density central', 'MMSE') | dt between 1-2.5 years, age between 60-70 | 0.12 | 0.70 | 0.23 | 0.50 | 13 | 64.1 (3.5) | 0.54 |
| ('Fast spindles density central', 'MMSE') | dt between 1-2.5 years, age older than 70 | 0.35 | 0.11 | 0.37 | 0.11 | 22 | 77.0 (4.9) | 0.23 |
| ('Fast spindles density central', 'MMSE') | dt between 2.5-7 years, age all | 0.15 | 0.20 | -0.03 | 0.79 | 76 | 64.0 (10.6) | 0.53 |
| ('Fast spindles density central', 'MMSE') | dt between 2.5-7 years, age younger than 60 | -0.08 | 0.70 | -0.14 | 0.52 | 26 | 51.9 (5.8) | 0.62 |
| ('Fast spindles density central', 'MMSE') | dt between 2.5-7 years, age between 60-70 | 0.24 | 0.23 | 0.24 | 0.24 | 28 | 65.7 (2.4) | 0.57 |
| ('Fast spindles density central', 'MMSE') | dt between 2.5-7 years, age older than 70 | -0.02 | 0.92 | -0.05 | 0.83 | 22 | 76.1 (4.5) | 0.36 |
| ('Fast spindles density central', 'MMSE') |  |  |  |  |  |  |  |  |
| ('Hippocampus', 'MMSE') | dt all, age all | 0.20 | 0.01 | 0.12 | 0.15 | 160 | 65.5 (11.4) | 0.46 |
| ('Hippocampus', 'MMSE') | dt all, age younger than 60 | -0.01 | 0.97 | -0.01 | 0.97 | 48 | 51.4 (6.0) | 0.58 |
| ('Hippocampus', 'MMSE') | dt all, age between 60-70 | 0.00 | 0.97 | 0.03 | 0.85 | 51 | 65.3 (2.9) | 0.51 |
| ('Hippocampus', 'MMSE') | dt all, age older than 70 | 0.22 | 0.09 | 0.16 | 0.24 | 61 | 76.7 (4.6) | 0.33 |
| ('Hippocampus', 'MMSE') | dt within 1 year, age all | 0.02 | 0.90 | -0.02 | 0.89 | 36 | 66.8 (12.3) | 0.42 |
| ('Hippocampus', 'MMSE') | dt within 1 year, age younger than 60 | -0.33 | 0.38 | -0.58 | 0.17 | 9 | 48.7 (4.0) | 0.56 |
| ('Hippocampus', 'MMSE') | dt within 1 year, age between 60-70 | -0.51 | 0.13 | -0.30 | 0.47 | 10 | 65.8 (2.9) | 0.3 |
| ('Hippocampus', 'MMSE') | dt within 1 year, age older than 70 | 0.15 | 0.57 | 0.09 | 0.74 | 17 | 76.9 (4.7) | 0.41 |
| ('Hippocampus', 'MMSE') | dt between 1-2.5 years, age all | 0.24 | 0.10 | 0.17 | 0.25 | 48 | 66.8 (11.7) | 0.4 |
| ('Hippocampus', 'MMSE') | dt between 1-2.5 years, age younger than 60 | 0.01 | 0.96 | 0.07 | 0.84 | 13 | 52.3 (7.4) | 0.54 |
| ('Hippocampus', 'MMSE') | dt between 1-2.5 years, age between 60-70 | 0.08 | 0.79 | 0.14 | 0.69 | 13 | 64.1 (3.5) | 0.54 |
| ('Hippocampus', 'MMSE') | dt between 1-2.5 years, age older than 70 | 0.25 | 0.27 | 0.10 | 0.66 | 22 | 77.0 (4.9) | 0.23 |
| ('Hippocampus', 'MMSE') | dt between 2.5-7 years, age all | 0.23 | 0.04 | 0.14 | 0.24 | 76 | 64.0 (10.6) | 0.53 |
| ('Hippocampus', 'MMSE') | dt between 2.5-7 years, age younger than 60 | 0.05 | 0.81 | 0.03 | 0.90 | 26 | 51.9 (5.8) | 0.62 |
| ('Hippocampus', 'MMSE') | dt between 2.5-7 years, age between 60-70 | 0.25 | 0.20 | 0.24 | 0.24 | 28 | 65.7 (2.4) | 0.57 |
| ('Hippocampus', 'MMSE') | dt between 2.5-7 years, age older than 70 | 0.25 | 0.27 | 0.31 | 0.19 | 22 | 76.1 (4.5) | 0.36 |
| ('Hippocampus', 'MMSE') |  |  |  |  |  |  |  |  |
| ('Percentage R', 'MMSE') | dt all, age all | 0.17 | 0.03 | 0.16 | 0.04 | 160 | 65.5 (11.4) | 0.46 |
| ('Percentage R', 'MMSE') | dt all, age younger than 60 | 0.12 | 0.40 | 0.15 | 0.32 | 48 | 51.4 (6.0) | 0.58 |
| ('Percentage R', 'MMSE') | dt all, age between 60-70 | 0.21 | 0.14 | 0.18 | 0.20 | 51 | 65.3 (2.9) | 0.51 |
| ('Percentage R', 'MMSE') | dt all, age older than 70 | 0.15 | 0.24 | 0.21 | 0.11 | 61 | 76.7 (4.6) | 0.33 |
| ('Percentage R', 'MMSE') | dt within 1 year, age all | 0.15 | 0.40 | 0.13 | 0.46 | 36 | 66.8 (12.3) | 0.42 |
| ('Percentage R', 'MMSE') | dt within 1 year, age younger than 60 | -0.11 | 0.77 | 0.18 | 0.69 | 9 | 48.7 (4.0) | 0.56 |
| ('Percentage R', 'MMSE') | dt within 1 year, age between 60-70 | 0.09 | 0.80 | -0.09 | 0.83 | 10 | 65.8 (2.9) | 0.3 |
| ('Percentage R', 'MMSE') | dt within 1 year, age older than 70 | 0.19 | 0.47 | 0.18 | 0.52 | 17 | 76.9 (4.7) | 0.41 |
| ('Percentage R', 'MMSE') | dt between 1-2.5 years, age all | 0.05 | 0.71 | 0.10 | 0.52 | 48 | 66.8 (11.7) | 0.4 |
| ('Percentage R', 'MMSE') | dt between 1-2.5 years, age younger than 60 | 0.16 | 0.60 | 0.19 | 0.57 | 13 | 52.3 (7.4) | 0.54 |
| ('Percentage R', 'MMSE') | dt between 1-2.5 years, age between 60-70 | 0.35 | 0.24 | 0.38 | 0.25 | 13 | 64.1 (3.5) | 0.54 |
| ('Percentage R', 'MMSE') | dt between 1-2.5 years, age older than 70 | -0.08 | 0.71 | 0.07 | 0.77 | 22 | 77.0 (4.9) | 0.23 |
| ('Percentage R', 'MMSE') | dt between 2.5-7 years, age all | 0.31 | 0.01 | 0.24 | 0.04 | 76 | 64.0 (10.6) | 0.53 |
| ('Percentage R', 'MMSE') | dt between 2.5-7 years, age younger than 60 | 0.19 | 0.34 | 0.16 | 0.46 | 26 | 51.9 (5.8) | 0.62 |
| ('Percentage R', 'MMSE') | dt between 2.5-7 years, age between 60-70 | 0.28 | 0.15 | 0.29 | 0.16 | 28 | 65.7 (2.4) | 0.57 |
| ('Percentage R', 'MMSE') | dt between 2.5-7 years, age older than 70 | 0.48 | 0.02 | 0.56 | 0.01 | 22 | 76.1 (4.5) | 0.36 |
| ('Percentage R', 'MMSE') |  |  |  |  |  |  |  |  |
| ('Isthmuscingulate', 'MMSE') | dt all, age all | 0.06 | 0.48 | 0.08 | 0.33 | 160 | 65.5 (11.4) | 0.46 |
| ('Isthmuscingulate', 'MMSE') | dt all, age younger than 60 | 0.05 | 0.75 | 0.00 | 0.99 | 48 | 51.4 (6.0) | 0.58 |
| ('Isthmuscingulate', 'MMSE') | dt all, age between 60-70 | 0.18 | 0.20 | 0.17 | 0.26 | 51 | 65.3 (2.9) | 0.51 |
| ('Isthmuscingulate', 'MMSE') | dt all, age older than 70 | 0.04 | 0.78 | 0.03 | 0.79 | 61 | 76.7 (4.6) | 0.33 |
| ('Isthmuscingulate', 'MMSE') | dt within 1 year, age all | 0.32 | 0.06 | 0.31 | 0.07 | 36 | 66.8 (12.3) | 0.42 |
| ('Isthmuscingulate', 'MMSE') | dt within 1 year, age younger than 60 | 0.27 | 0.49 | 0.52 | 0.23 | 9 | 48.7 (4.0) | 0.56 |
| ('Isthmuscingulate', 'MMSE') | dt within 1 year, age between 60-70 | 0.30 | 0.39 | 0.57 | 0.14 | 10 | 65.8 (2.9) | 0.3 |
| ('Isthmuscingulate', 'MMSE') | dt within 1 year, age older than 70 | 0.32 | 0.21 | 0.26 | 0.35 | 17 | 76.9 (4.7) | 0.41 |
| ('Isthmuscingulate', 'MMSE') | dt between 1-2.5 years, age all | -0.01 | 0.93 | 0.00 | 1.00 | 48 | 66.8 (11.7) | 0.4 |
| ('Isthmuscingulate', 'MMSE') | dt between 1-2.5 years, age younger than 60 | -0.12 | 0.70 | -0.53 | 0.09 | 13 | 52.3 (7.4) | 0.54 |
| ('Isthmuscingulate', 'MMSE') | dt between 1-2.5 years, age between 60-70 | 0.49 | 0.09 | 0.51 | 0.11 | 13 | 64.1 (3.5) | 0.54 |
| ('Isthmuscingulate', 'MMSE') | dt between 1-2.5 years, age older than 70 | -0.19 | 0.40 | -0.16 | 0.50 | 22 | 77.0 (4.9) | 0.23 |
| ('Isthmuscingulate', 'MMSE') | dt between 2.5-7 years, age all | -0.03 | 0.80 | 0.02 | 0.89 | 76 | 64.0 (10.6) | 0.53 |
| ('Isthmuscingulate', 'MMSE') | dt between 2.5-7 years, age younger than 60 | 0.05 | 0.80 | 0.07 | 0.73 | 26 | 51.9 (5.8) | 0.62 |
| ('Isthmuscingulate', 'MMSE') | dt between 2.5-7 years, age between 60-70 | 0.01 | 0.95 | 0.00 | 0.99 | 28 | 65.7 (2.4) | 0.57 |
| ('Isthmuscingulate', 'MMSE') | dt between 2.5-7 years, age older than 70 | 0.04 | 0.85 | 0.15 | 0.52 | 22 | 76.1 (4.5) | 0.36 |
| ('Isthmuscingulate', 'MMSE') |  |  |  |  |  |  |  |  |
| ('Amygdala', 'MMSE') | dt all, age all | 0.29 | 0.00 | 0.20 | 0.01 | 160 | 65.5 (11.4) | 0.46 |
| ('Amygdala', 'MMSE') | dt all, age younger than 60 | 0.11 | 0.45 | 0.13 | 0.41 | 48 | 51.4 (6.0) | 0.58 |
| ('Amygdala', 'MMSE') | dt all, age between 60-70 | 0.17 | 0.22 | 0.19 | 0.20 | 51 | 65.3 (2.9) | 0.51 |
| ('Amygdala', 'MMSE') | dt all, age older than 70 | 0.25 | 0.05 | 0.20 | 0.12 | 61 | 76.7 (4.6) | 0.33 |
| ('Amygdala', 'MMSE') | dt within 1 year, age all | 0.17 | 0.32 | 0.09 | 0.60 | 36 | 66.8 (12.3) | 0.42 |
| ('Amygdala', 'MMSE') | dt within 1 year, age younger than 60 | 0.31 | 0.41 | -0.09 | 0.85 | 9 | 48.7 (4.0) | 0.56 |
| ('Amygdala', 'MMSE') | dt within 1 year, age between 60-70 | -0.53 | 0.12 | -0.42 | 0.30 | 10 | 65.8 (2.9) | 0.3 |
| ('Amygdala', 'MMSE') | dt within 1 year, age older than 70 | 0.14 | 0.59 | 0.09 | 0.76 | 17 | 76.9 (4.7) | 0.41 |
| ('Amygdala', 'MMSE') | dt between 1-2.5 years, age all | 0.21 | 0.16 | 0.13 | 0.40 | 48 | 66.8 (11.7) | 0.4 |
| ('Amygdala', 'MMSE') | dt between 1-2.5 years, age younger than 60 | -0.04 | 0.90 | 0.00 | 1.00 | 13 | 52.3 (7.4) | 0.54 |
| ('Amygdala', 'MMSE') | dt between 1-2.5 years, age between 60-70 | 0.18 | 0.56 | 0.25 | 0.45 | 13 | 64.1 (3.5) | 0.54 |
| ('Amygdala', 'MMSE') | dt between 1-2.5 years, age older than 70 | 0.11 | 0.63 | -0.02 | 0.92 | 22 | 77.0 (4.9) | 0.23 |
| ('Amygdala', 'MMSE') | dt between 2.5-7 years, age all | 0.39 | 0.00 | 0.28 | 0.02 | 76 | 64.0 (10.6) | 0.53 |
| ('Amygdala', 'MMSE') | dt between 2.5-7 years, age younger than 60 | 0.04 | 0.83 | -0.01 | 0.96 | 26 | 51.9 (5.8) | 0.62 |
| ('Amygdala', 'MMSE') | dt between 2.5-7 years, age between 60-70 | 0.41 | 0.03 | 0.40 | 0.04 | 28 | 65.7 (2.4) | 0.57 |
| ('Amygdala', 'MMSE') | dt between 2.5-7 years, age older than 70 | 0.46 | 0.03 | 0.48 | 0.03 | 22 | 76.1 (4.5) | 0.36 |
| ('Amygdala', 'MMSE') |  |  |  |  |  |  |  |  |
| ('Brainstem', 'MMSE') | dt all, age all | 0.03 | 0.69 | 0.03 | 0.73 | 160 | 65.5 (11.4) | 0.46 |
| ('Brainstem', 'MMSE') | dt all, age younger than 60 | -0.17 | 0.25 | -0.17 | 0.26 | 48 | 51.4 (6.0) | 0.58 |
| ('Brainstem', 'MMSE') | dt all, age between 60-70 | 0.09 | 0.54 | 0.10 | 0.51 | 51 | 65.3 (2.9) | 0.51 |
| ('Brainstem', 'MMSE') | dt all, age older than 70 | 0.11 | 0.40 | 0.10 | 0.46 | 61 | 76.7 (4.6) | 0.33 |
| ('Brainstem', 'MMSE') | dt within 1 year, age all | -0.07 | 0.69 | -0.08 | 0.64 | 36 | 66.8 (12.3) | 0.42 |
| ('Brainstem', 'MMSE') | dt within 1 year, age younger than 60 | -0.15 | 0.71 | -0.35 | 0.44 | 9 | 48.7 (4.0) | 0.56 |
| ('Brainstem', 'MMSE') | dt within 1 year, age between 60-70 | -0.59 | 0.07 | -0.57 | 0.14 | 10 | 65.8 (2.9) | 0.3 |
| ('Brainstem', 'MMSE') | dt within 1 year, age older than 70 | 0.03 | 0.90 | 0.02 | 0.96 | 17 | 76.9 (4.7) | 0.41 |
| ('Brainstem', 'MMSE') | dt between 1-2.5 years, age all | 0.02 | 0.90 | -0.01 | 0.92 | 48 | 66.8 (11.7) | 0.4 |
| ('Brainstem', 'MMSE') | dt between 1-2.5 years, age younger than 60 | -0.52 | 0.07 | -0.60 | 0.05 | 13 | 52.3 (7.4) | 0.54 |
| ('Brainstem', 'MMSE') | dt between 1-2.5 years, age between 60-70 | -0.02 | 0.95 | -0.08 | 0.82 | 13 | 64.1 (3.5) | 0.54 |
| ('Brainstem', 'MMSE') | dt between 1-2.5 years, age older than 70 | 0.18 | 0.42 | 0.19 | 0.42 | 22 | 77.0 (4.9) | 0.23 |
| ('Brainstem', 'MMSE') | dt between 2.5-7 years, age all | 0.03 | 0.80 | 0.07 | 0.55 | 76 | 64.0 (10.6) | 0.53 |
| ('Brainstem', 'MMSE') | dt between 2.5-7 years, age younger than 60 | -0.08 | 0.68 | -0.08 | 0.72 | 26 | 51.9 (5.8) | 0.62 |
| ('Brainstem', 'MMSE') | dt between 2.5-7 years, age between 60-70 | 0.28 | 0.15 | 0.29 | 0.15 | 28 | 65.7 (2.4) | 0.57 |
| ('Brainstem', 'MMSE') | dt between 2.5-7 years, age older than 70 | 0.05 | 0.82 | 0.06 | 0.82 | 22 | 76.1 (4.5) | 0.36 |
| ('Brainstem', 'MMSE') |  |  |  |  |  |  |  |  |
| ('Mean alpha during W', 'MMSE') | dt all, age all | 0.08 | 0.30 | 0.08 | 0.30 | 160 | 65.5 (11.4) | 0.46 |
| ('Mean alpha during W', 'MMSE') | dt all, age younger than 60 | -0.02 | 0.87 | 0.05 | 0.72 | 48 | 51.4 (6.0) | 0.58 |
| ('Mean alpha during W', 'MMSE') | dt all, age between 60-70 | 0.16 | 0.26 | 0.17 | 0.24 | 51 | 65.3 (2.9) | 0.51 |
| ('Mean alpha during W', 'MMSE') | dt all, age older than 70 | 0.09 | 0.49 | 0.16 | 0.22 | 61 | 76.7 (4.6) | 0.33 |
| ('Mean alpha during W', 'MMSE') | dt within 1 year, age all | 0.08 | 0.63 | 0.04 | 0.81 | 36 | 66.8 (12.3) | 0.42 |
| ('Mean alpha during W', 'MMSE') | dt within 1 year, age younger than 60 | -0.13 | 0.74 | 0.10 | 0.83 | 9 | 48.7 (4.0) | 0.56 |
| ('Mean alpha during W', 'MMSE') | dt within 1 year, age between 60-70 | 0.12 | 0.74 | -0.02 | 0.96 | 10 | 65.8 (2.9) | 0.3 |
| ('Mean alpha during W', 'MMSE') | dt within 1 year, age older than 70 | 0.12 | 0.63 | 0.08 | 0.77 | 17 | 76.9 (4.7) | 0.41 |
| ('Mean alpha during W', 'MMSE') | dt between 1-2.5 years, age all | -0.06 | 0.67 | -0.04 | 0.78 | 48 | 66.8 (11.7) | 0.4 |
| ('Mean alpha during W', 'MMSE') | dt between 1-2.5 years, age younger than 60 | -0.14 | 0.66 | 0.24 | 0.47 | 13 | 52.3 (7.4) | 0.54 |
| ('Mean alpha during W', 'MMSE') | dt between 1-2.5 years, age between 60-70 | 0.22 | 0.46 | 0.31 | 0.36 | 13 | 64.1 (3.5) | 0.54 |
| ('Mean alpha during W', 'MMSE') | dt between 1-2.5 years, age older than 70 | -0.05 | 0.83 | 0.16 | 0.50 | 22 | 77.0 (4.9) | 0.23 |
| ('Mean alpha during W', 'MMSE') | dt between 2.5-7 years, age all | 0.16 | 0.18 | 0.18 | 0.13 | 76 | 64.0 (10.6) | 0.53 |
| ('Mean alpha during W', 'MMSE') | dt between 2.5-7 years, age younger than 60 | 0.19 | 0.34 | 0.14 | 0.51 | 26 | 51.9 (5.8) | 0.62 |
| ('Mean alpha during W', 'MMSE') | dt between 2.5-7 years, age between 60-70 | 0.17 | 0.38 | 0.17 | 0.41 | 28 | 65.7 (2.4) | 0.57 |
| ('Mean alpha during W', 'MMSE') | dt between 2.5-7 years, age older than 70 | 0.15 | 0.50 | 0.22 | 0.36 | 22 | 76.1 (4.5) | 0.36 |
| ('Mean alpha during W', 'MMSE') |  |  |  |  |  |  |  |  |
| ('Total ventricle volume', 'MMSE') | dt all, age all | -0.24 | 0.00 | -0.15 | 0.07 | 160 | 65.5 (11.4) | 0.46 |
| ('Total ventricle volume', 'MMSE') | dt all, age younger than 60 | -0.08 | 0.59 | -0.14 | 0.35 | 48 | 51.4 (6.0) | 0.58 |
| ('Total ventricle volume', 'MMSE') | dt all, age between 60-70 | -0.21 | 0.15 | -0.21 | 0.15 | 51 | 65.3 (2.9) | 0.51 |
| ('Total ventricle volume', 'MMSE') | dt all, age older than 70 | -0.15 | 0.26 | -0.11 | 0.40 | 61 | 76.7 (4.6) | 0.33 |
| ('Total ventricle volume', 'MMSE') | dt within 1 year, age all | -0.26 | 0.13 | -0.14 | 0.43 | 36 | 66.8 (12.3) | 0.42 |
| ('Total ventricle volume', 'MMSE') | dt within 1 year, age younger than 60 | 0.24 | 0.53 | 0.39 | 0.38 | 9 | 48.7 (4.0) | 0.56 |
| ('Total ventricle volume', 'MMSE') | dt within 1 year, age between 60-70 | 0.07 | 0.86 | -0.07 | 0.86 | 10 | 65.8 (2.9) | 0.3 |
| ('Total ventricle volume', 'MMSE') | dt within 1 year, age older than 70 | -0.23 | 0.37 | -0.17 | 0.54 | 17 | 76.9 (4.7) | 0.41 |
| ('Total ventricle volume', 'MMSE') | dt between 1-2.5 years, age all | -0.22 | 0.14 | -0.14 | 0.34 | 48 | 66.8 (11.7) | 0.4 |
| ('Total ventricle volume', 'MMSE') | dt between 1-2.5 years, age younger than 60 | 0.06 | 0.85 | -0.08 | 0.81 | 13 | 52.3 (7.4) | 0.54 |
| ('Total ventricle volume', 'MMSE') | dt between 1-2.5 years, age between 60-70 | -0.26 | 0.39 | -0.30 | 0.38 | 13 | 64.1 (3.5) | 0.54 |
| ('Total ventricle volume', 'MMSE') | dt between 1-2.5 years, age older than 70 | -0.15 | 0.50 | -0.10 | 0.68 | 22 | 77.0 (4.9) | 0.23 |
| ('Total ventricle volume', 'MMSE') | dt between 2.5-7 years, age all | -0.26 | 0.02 | -0.16 | 0.18 | 76 | 64.0 (10.6) | 0.53 |
| ('Total ventricle volume', 'MMSE') | dt between 2.5-7 years, age younger than 60 | -0.37 | 0.06 | -0.33 | 0.12 | 26 | 51.9 (5.8) | 0.62 |
| ('Total ventricle volume', 'MMSE') | dt between 2.5-7 years, age between 60-70 | -0.33 | 0.08 | -0.31 | 0.12 | 28 | 65.7 (2.4) | 0.57 |
| ('Total ventricle volume', 'MMSE') | dt between 2.5-7 years, age older than 70 | -0.07 | 0.76 | -0.08 | 0.73 | 22 | 76.1 (4.5) | 0.36 |
|  |  |  |  |  |  |  |  |  |

**Table S2**: Sensitivity analysis of a-priori hypotheses stratified by subjects' disease status. Disease categories include dementia, MCI, depression, cancer, diabetes, congestive heart failure, peripheral vascular disease, cerebral vascular disease, various levels of Charlson Comorbidity Index, or none of the listed diseases. Note: Subjects with dementia or MCI were exclusive to their respective categories, while other disease categories were not mutually exclusive.

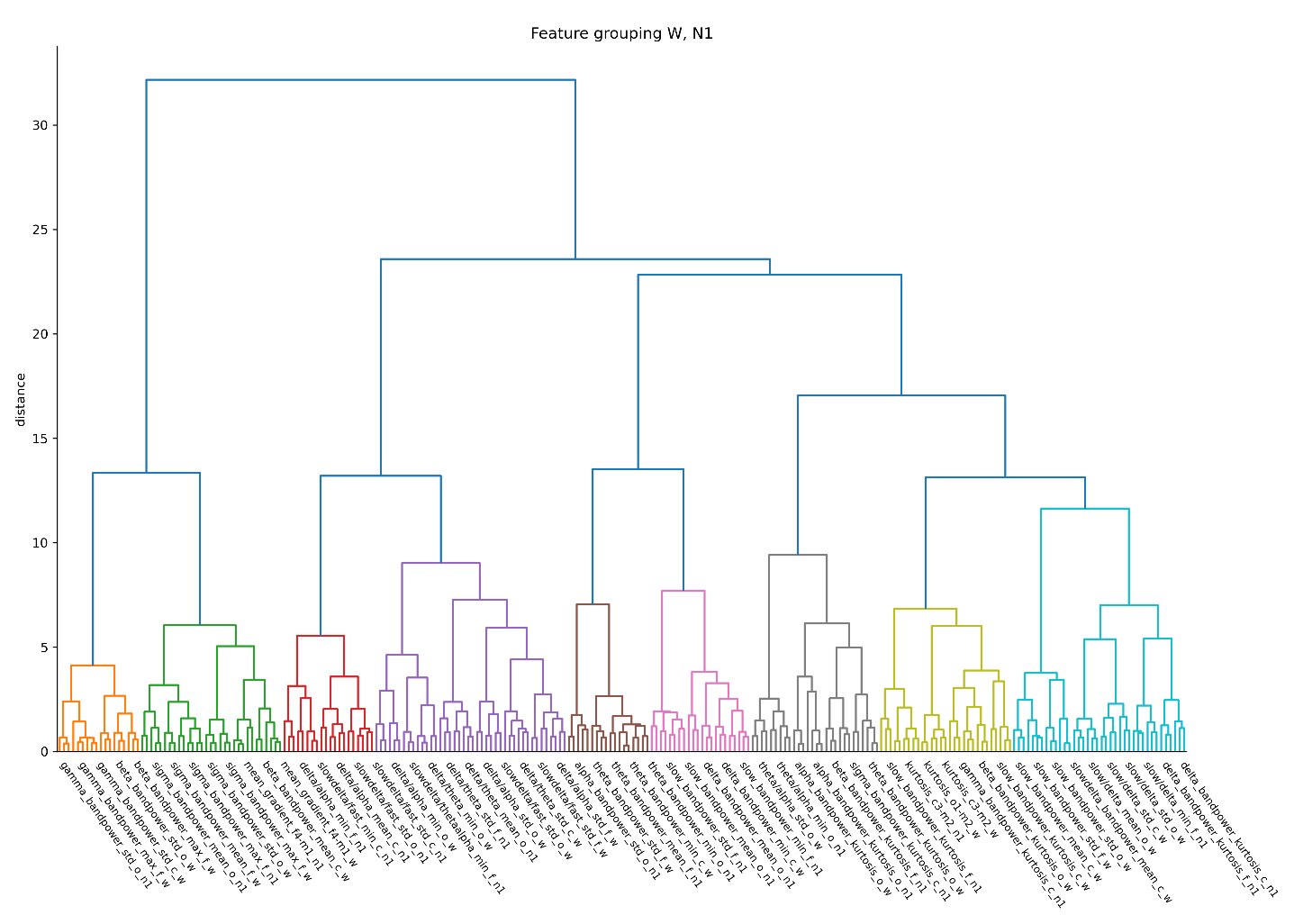
|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Feature Pair** | **Cohort selection** | **Pearson R** | **p-value** | **Partial  Pearson R** | **p-value** | **N subjects** | **Age** | **% female** |
| ('Total slow and delta power', 'Anterior cortex') | Dementia | 0.31 | 0.06 | 0.27 | 0.10 | 36 | 73.3 (11.2) | 0.58 |
| ('Total slow and delta power', 'Anterior cortex') | MCI | -0.02 | 0.90 | -0.18 | 0.10 | 71 | 68.0 (9.7) | 0.48 |
| ('Total slow and delta power', 'Anterior cortex') | Depression | 0.08 | 0.20 | -0.04 | 0.50 | 262 | 57.8 (11.9) | 0.66 |
| ('Total slow and delta power', 'Anterior cortex') | Cancer | 0.09 | 0.30 | -0.04 | 0.60 | 127 | 64.5 (10.4) | 0.46 |
| ('Total slow and delta power', 'Anterior cortex') | Diabetes | 0.06 | 0.50 | -0.04 | 0.70 | 120 | 60.6 (10.4) | 0.53 |
| ('Total slow and delta power', 'Anterior cortex') | CHF | 0.11 | 0.40 | 0.03 | 0.80 | 78 | 65.4 (11.1) | 0.5 |
| ('Total slow and delta power', 'Anterior cortex') | Periph. Vasc. D. | 0.02 | 0.90 | -0.13 | 0.30 | 87 | 64.7 (10.9) | 0.47 |
| ('Total slow and delta power', 'Anterior cortex') | Cereb. Vasc. D. | 0.17 | 0.05 | 0.01 | 0.90 | 136 | 63.1 (10.8) | 0.52 |
| ('Total slow and delta power', 'Anterior cortex') | Charlson CI < 2 | 0.13 | 0.05 | 0.03 | 0.70 | 240 | 56.9 (11.9) | 0.55 |
| ('Total slow and delta power', 'Anterior cortex') | Charlson CI 2-4 | 0.11 | 0.10 | -0.07 | 0.30 | 201 | 61.6 (12.6) | 0.59 |
| ('Total slow and delta power', 'Anterior cortex') | Charlson CI > 5 | 0.17 | 0.10 | 0.09 | 0.40 | 82 | 65.4 (10.5) | 0.48 |
| ('Total slow and delta power', 'Anterior cortex') | None of above | 0.11 | 0.20 | -0.01 | 0.90 | 131 | 56.6 (12.9) | 0.49 |
| ('Total slow and delta power', 'Anterior cortex') | None of above AND CCI<2 | 0.11 | 0.30 | 0.06 | 0.60 | 86 | 55.1 (12.1) | 0.5 |
| ('Total slow and delta power', 'Anterior cortex') |  |  |  |  |  |  |  |  |
| ('Total slow and delta power', 'Thalamus') | Dementia | 0.34 | 0.04 | 0.06 | 0.70 | 36 | 73.3 (11.2) | 0.58 |
| ('Total slow and delta power', 'Thalamus') | MCI | 0.23 | 0.06 | 0.00 | 1.00 | 71 | 68.0 (9.7) | 0.48 |
| ('Total slow and delta power', 'Thalamus') | Depression | 0.30 | 0.00 | 0.05 | 0.50 | 262 | 57.8 (11.9) | 0.66 |
| ('Total slow and delta power', 'Thalamus') | Cancer | 0.36 | 0.00 | 0.11 | 0.20 | 127 | 64.5 (10.4) | 0.46 |
| ('Total slow and delta power', 'Thalamus') | Diabetes | 0.28 | 0.00 | 0.08 | 0.40 | 120 | 60.6 (10.4) | 0.53 |
| ('Total slow and delta power', 'Thalamus') | CHF | 0.22 | 0.05 | 0.04 | 0.70 | 78 | 65.4 (11.1) | 0.5 |
| ('Total slow and delta power', 'Thalamus') | Periph. Vasc. D. | 0.25 | 0.02 | -0.07 | 0.50 | 87 | 64.7 (10.9) | 0.47 |
| ('Total slow and delta power', 'Thalamus') | Cereb. Vasc. D. | 0.28 | 0.00 | -0.08 | 0.40 | 136 | 63.1 (10.8) | 0.52 |
| ('Total slow and delta power', 'Thalamus') | Charlson CI < 2 | 0.24 | 0.00 | -0.02 | 0.80 | 240 | 56.9 (11.9) | 0.55 |
| ('Total slow and delta power', 'Thalamus') | Charlson CI 2-4 | 0.36 | 0.00 | 0.00 | 1.00 | 201 | 61.6 (12.6) | 0.59 |
| ('Total slow and delta power', 'Thalamus') | Charlson CI > 5 | 0.34 | 0.00 | 0.19 | 0.10 | 82 | 65.4 (10.5) | 0.48 |
| ('Total slow and delta power', 'Thalamus') | None of above | 0.19 | 0.03 | -0.14 | 0.10 | 131 | 56.6 (12.9) | 0.49 |
| ('Total slow and delta power', 'Thalamus') | None of above AND CCI<2 | 0.17 | 0.10 | -0.08 | 0.50 | 86 | 55.1 (12.1) | 0.5 |
| ('Total slow and delta power', 'Thalamus') |  |  |  |  |  |  |  |  |
| ('SO rate frontal', 'Anterior cortex') | Dementia | 0.13 | 0.40 | 0.13 | 0.50 | 36 | 73.3 (11.2) | 0.58 |
| ('SO rate frontal', 'Anterior cortex') | MCI | -0.08 | 0.50 | -0.19 | 0.10 | 71 | 68.0 (9.7) | 0.48 |
| ('SO rate frontal', 'Anterior cortex') | Depression | 0.08 | 0.20 | 0.00 | 1.00 | 262 | 57.8 (11.9) | 0.66 |
| ('SO rate frontal', 'Anterior cortex') | Cancer | 0.14 | 0.10 | 0.06 | 0.50 | 127 | 64.5 (10.4) | 0.46 |
| ('SO rate frontal', 'Anterior cortex') | Diabetes | 0.06 | 0.50 | 0.01 | 0.90 | 120 | 60.6 (10.4) | 0.53 |
| ('SO rate frontal', 'Anterior cortex') | CHF | 0.07 | 0.50 | 0.02 | 0.80 | 78 | 65.4 (11.1) | 0.5 |
| ('SO rate frontal', 'Anterior cortex') | Periph. Vasc. D. | -0.04 | 0.70 | -0.15 | 0.20 | 87 | 64.7 (10.9) | 0.47 |
| ('SO rate frontal', 'Anterior cortex') | Cereb. Vasc. D. | 0.13 | 0.10 | -0.02 | 0.90 | 136 | 63.1 (10.8) | 0.52 |
| ('SO rate frontal', 'Anterior cortex') | Charlson CI < 2 | 0.08 | 0.20 | 0.01 | 0.90 | 240 | 56.9 (11.9) | 0.55 |
| ('SO rate frontal', 'Anterior cortex') | Charlson CI 2-4 | 0.14 | 0.04 | 0.03 | 0.70 | 201 | 61.6 (12.6) | 0.59 |
| ('SO rate frontal', 'Anterior cortex') | Charlson CI > 5 | 0.10 | 0.40 | 0.04 | 0.80 | 82 | 65.4 (10.5) | 0.48 |
| ('SO rate frontal', 'Anterior cortex') | None of above | 0.14 | 0.10 | 0.02 | 0.80 | 131 | 56.6 (12.9) | 0.49 |
| ('SO rate frontal', 'Anterior cortex') | None of above AND CCI<2 | 0.13 | 0.20 | 0.08 | 0.50 | 86 | 55.1 (12.1) | 0.5 |
| ('SO rate frontal', 'Anterior cortex') |  |  |  |  |  |  |  |  |
| ('SO rate frontal', 'Thalamus') | Dementia | 0.16 | 0.40 | -0.08 | 0.70 | 36 | 73.3 (11.2) | 0.58 |
| ('SO rate frontal', 'Thalamus') | MCI | 0.19 | 0.10 | 0.05 | 0.70 | 71 | 68.0 (9.7) | 0.48 |
| ('SO rate frontal', 'Thalamus') | Depression | 0.23 | 0.00 | 0.06 | 0.30 | 262 | 57.8 (11.9) | 0.66 |
| ('SO rate frontal', 'Thalamus') | Cancer | 0.24 | 0.01 | 0.04 | 0.60 | 127 | 64.5 (10.4) | 0.46 |
| ('SO rate frontal', 'Thalamus') | Diabetes | 0.20 | 0.03 | 0.07 | 0.50 | 120 | 60.6 (10.4) | 0.53 |
| ('SO rate frontal', 'Thalamus') | CHF | 0.15 | 0.20 | 0.01 | 0.90 | 78 | 65.4 (11.1) | 0.5 |
| ('SO rate frontal', 'Thalamus') | Periph. Vasc. D. | 0.16 | 0.10 | -0.11 | 0.30 | 87 | 64.7 (10.9) | 0.47 |
| ('SO rate frontal', 'Thalamus') | Cereb. Vasc. D. | 0.24 | 0.00 | -0.08 | 0.40 | 136 | 63.1 (10.8) | 0.52 |
| ('SO rate frontal', 'Thalamus') | Charlson CI < 2 | 0.20 | 0.00 | 0.02 | 0.70 | 240 | 56.9 (11.9) | 0.55 |
| ('SO rate frontal', 'Thalamus') | Charlson CI 2-4 | 0.22 | 0.00 | -0.05 | 0.50 | 201 | 61.6 (12.6) | 0.59 |
| ('SO rate frontal', 'Thalamus') | Charlson CI > 5 | 0.30 | 0.01 | 0.19 | 0.10 | 82 | 65.4 (10.5) | 0.48 |
| ('SO rate frontal', 'Thalamus') | None of above | 0.18 | 0.04 | -0.14 | 0.10 | 131 | 56.6 (12.9) | 0.49 |
| ('SO rate frontal', 'Thalamus') | None of above AND CCI<2 | 0.17 | 0.10 | -0.10 | 0.40 | 86 | 55.1 (12.1) | 0.5 |
| ('SO rate frontal', 'Thalamus') |  |  |  |  |  |  |  |  |
| ('Slow spindles density frontal', 'Thalamus') | Dementia | 0.36 | 0.03 | 0.25 | 0.20 | 36 | 73.3 (11.2) | 0.58 |
| ('Slow spindles density frontal', 'Thalamus') | MCI | 0.35 | 0.00 | 0.11 | 0.40 | 71 | 68.0 (9.7) | 0.48 |
| ('Slow spindles density frontal', 'Thalamus') | Depression | 0.14 | 0.03 | -0.03 | 0.60 | 262 | 57.8 (11.9) | 0.66 |
| ('Slow spindles density frontal', 'Thalamus') | Cancer | 0.20 | 0.02 | -0.01 | 0.90 | 127 | 64.5 (10.4) | 0.46 |
| ('Slow spindles density frontal', 'Thalamus') | Diabetes | 0.20 | 0.03 | 0.07 | 0.50 | 120 | 60.6 (10.4) | 0.53 |
| ('Slow spindles density frontal', 'Thalamus') | CHF | 0.18 | 0.10 | -0.02 | 0.90 | 78 | 65.4 (11.1) | 0.5 |
| ('Slow spindles density frontal', 'Thalamus') | Periph. Vasc. D. | 0.33 | 0.00 | 0.17 | 0.10 | 87 | 64.7 (10.9) | 0.47 |
| ('Slow spindles density frontal', 'Thalamus') | Cereb. Vasc. D. | 0.19 | 0.02 | 0.02 | 0.80 | 136 | 63.1 (10.8) | 0.52 |
| ('Slow spindles density frontal', 'Thalamus') | Charlson CI < 2 | 0.14 | 0.03 | 0.01 | 0.80 | 240 | 56.9 (11.9) | 0.55 |
| ('Slow spindles density frontal', 'Thalamus') | Charlson CI 2-4 | 0.19 | 0.01 | 0.02 | 0.80 | 201 | 61.6 (12.6) | 0.59 |
| ('Slow spindles density frontal', 'Thalamus') | Charlson CI > 5 | 0.23 | 0.04 | 0.05 | 0.70 | 82 | 65.4 (10.5) | 0.48 |
| ('Slow spindles density frontal', 'Thalamus') | None of above | 0.13 | 0.10 | 0.01 | 0.90 | 131 | 56.6 (12.9) | 0.49 |
| ('Slow spindles density frontal', 'Thalamus') | None of above AND CCI<2 | 0.07 | 0.50 | 0.01 | 0.90 | 86 | 55.1 (12.1) | 0.5 |
| ('Slow spindles density frontal', 'Thalamus') |  |  |  |  |  |  |  |  |
| ('Slow spindles density frontal', 'Hippocampus') | Dementia | 0.32 | 0.06 | 0.20 | 0.30 | 36 | 73.3 (11.2) | 0.58 |
| ('Slow spindles density frontal', 'Hippocampus') | MCI | 0.14 | 0.20 | -0.05 | 0.70 | 71 | 68.0 (9.7) | 0.48 |
| ('Slow spindles density frontal', 'Hippocampus') | Depression | 0.02 | 0.80 | -0.05 | 0.40 | 262 | 57.8 (11.9) | 0.66 |
| ('Slow spindles density frontal', 'Hippocampus') | Cancer | -0.05 | 0.60 | -0.14 | 0.10 | 127 | 64.5 (10.4) | 0.46 |
| ('Slow spindles density frontal', 'Hippocampus') | Diabetes | -0.02 | 0.80 | -0.04 | 0.70 | 120 | 60.6 (10.4) | 0.53 |
| ('Slow spindles density frontal', 'Hippocampus') | CHF | -0.16 | 0.20 | -0.16 | 0.20 | 78 | 65.4 (11.1) | 0.5 |
| ('Slow spindles density frontal', 'Hippocampus') | Periph. Vasc. D. | -0.03 | 0.80 | -0.14 | 0.20 | 87 | 64.7 (10.9) | 0.47 |
| ('Slow spindles density frontal', 'Hippocampus') | Cereb. Vasc. D. | 0.09 | 0.30 | 0.02 | 0.80 | 136 | 63.1 (10.8) | 0.52 |
| ('Slow spindles density frontal', 'Hippocampus') | Charlson CI < 2 | 0.08 | 0.20 | 0.01 | 0.90 | 240 | 56.9 (11.9) | 0.55 |
| ('Slow spindles density frontal', 'Hippocampus') | Charlson CI 2-4 | -0.05 | 0.50 | -0.13 | 0.06 | 201 | 61.6 (12.6) | 0.59 |
| ('Slow spindles density frontal', 'Hippocampus') | Charlson CI > 5 | -0.03 | 0.80 | -0.09 | 0.40 | 82 | 65.4 (10.5) | 0.48 |
| ('Slow spindles density frontal', 'Hippocampus') | None of above | 0.07 | 0.40 | 0.04 | 0.70 | 131 | 56.6 (12.9) | 0.49 |
| ('Slow spindles density frontal', 'Hippocampus') | None of above AND CCI<2 | 0.05 | 0.70 | 0.03 | 0.80 | 86 | 55.1 (12.1) | 0.5 |
| ('Slow spindles density frontal', 'Hippocampus') |  |  |  |  |  |  |  |  |
| ('Fast spindles density central', 'Thalamus') | Dementia | 0.24 | 0.20 | 0.19 | 0.30 | 36 | 73.3 (11.2) | 0.58 |
| ('Fast spindles density central', 'Thalamus') | MCI | 0.36 | 0.00 | 0.09 | 0.50 | 71 | 68.0 (9.7) | 0.48 |
| ('Fast spindles density central', 'Thalamus') | Depression | 0.32 | 0.00 | 0.12 | 0.06 | 262 | 57.8 (11.9) | 0.66 |
| ('Fast spindles density central', 'Thalamus') | Cancer | 0.26 | 0.00 | 0.19 | 0.03 | 127 | 64.5 (10.4) | 0.46 |
| ('Fast spindles density central', 'Thalamus') | Diabetes | 0.28 | 0.00 | 0.18 | 0.05 | 120 | 60.6 (10.4) | 0.53 |
| ('Fast spindles density central', 'Thalamus') | CHF | 0.16 | 0.20 | 0.01 | 0.90 | 78 | 65.4 (11.1) | 0.5 |
| ('Fast spindles density central', 'Thalamus') | Periph. Vasc. D. | 0.28 | 0.01 | 0.17 | 0.10 | 87 | 64.7 (10.9) | 0.47 |
| ('Fast spindles density central', 'Thalamus') | Cereb. Vasc. D. | 0.30 | 0.00 | 0.09 | 0.30 | 136 | 63.1 (10.8) | 0.52 |
| ('Fast spindles density central', 'Thalamus') | Charlson CI < 2 | 0.33 | 0.00 | 0.15 | 0.02 | 240 | 56.9 (11.9) | 0.55 |
| ('Fast spindles density central', 'Thalamus') | Charlson CI 2-4 | 0.29 | 0.00 | 0.08 | 0.30 | 201 | 61.6 (12.6) | 0.59 |
| ('Fast spindles density central', 'Thalamus') | Charlson CI > 5 | 0.18 | 0.10 | 0.06 | 0.60 | 82 | 65.4 (10.5) | 0.48 |
| ('Fast spindles density central', 'Thalamus') | None of above | 0.18 | 0.04 | 0.06 | 0.50 | 131 | 56.6 (12.9) | 0.49 |
| ('Fast spindles density central', 'Thalamus') | None of above AND CCI<2 | 0.19 | 0.08 | 0.08 | 0.50 | 86 | 55.1 (12.1) | 0.5 |
| ('Fast spindles density central', 'Thalamus') |  |  |  |  |  |  |  |  |
| ('Fast spindles density central', 'Hippocampus') | Dementia | 0.25 | 0.10 | 0.21 | 0.20 | 36 | 73.3 (11.2) | 0.58 |
| ('Fast spindles density central', 'Hippocampus') | MCI | 0.34 | 0.00 | 0.16 | 0.20 | 71 | 68.0 (9.7) | 0.48 |
| ('Fast spindles density central', 'Hippocampus') | Depression | 0.12 | 0.06 | 0.03 | 0.70 | 262 | 57.8 (11.9) | 0.66 |
| ('Fast spindles density central', 'Hippocampus') | Cancer | 0.01 | 0.90 | -0.04 | 0.60 | 127 | 64.5 (10.4) | 0.46 |
| ('Fast spindles density central', 'Hippocampus') | Diabetes | 0.17 | 0.07 | 0.17 | 0.06 | 120 | 60.6 (10.4) | 0.53 |
| ('Fast spindles density central', 'Hippocampus') | CHF | 0.02 | 0.80 | 0.03 | 0.80 | 78 | 65.4 (11.1) | 0.5 |
| ('Fast spindles density central', 'Hippocampus') | Periph. Vasc. D. | 0.00 | 1.00 | -0.07 | 0.50 | 87 | 64.7 (10.9) | 0.47 |
| ('Fast spindles density central', 'Hippocampus') | Cereb. Vasc. D. | 0.22 | 0.01 | 0.14 | 0.10 | 136 | 63.1 (10.8) | 0.52 |
| ('Fast spindles density central', 'Hippocampus') | Charlson CI < 2 | 0.16 | 0.01 | 0.05 | 0.50 | 240 | 56.9 (11.9) | 0.55 |
| ('Fast spindles density central', 'Hippocampus') | Charlson CI 2-4 | 0.05 | 0.50 | -0.06 | 0.40 | 201 | 61.6 (12.6) | 0.59 |
| ('Fast spindles density central', 'Hippocampus') | Charlson CI > 5 | 0.10 | 0.40 | 0.07 | 0.60 | 82 | 65.4 (10.5) | 0.48 |
| ('Fast spindles density central', 'Hippocampus') | None of above | 0.07 | 0.40 | 0.03 | 0.80 | 131 | 56.6 (12.9) | 0.49 |
| ('Fast spindles density central', 'Hippocampus') | None of above AND CCI<2 | -0.01 | 0.90 | -0.04 | 0.70 | 86 | 55.1 (12.1) | 0.5 |
| ('Fast spindles density central', 'Hippocampus') |  |  |  |  |  |  |  |  |
| ('Percentage R', 'Isthmuscingulate') | Dementia | 0.04 | 0.80 | 0.02 | 0.90 | 36 | 73.3 (11.2) | 0.58 |
| ('Percentage R', 'Isthmuscingulate') | MCI | -0.03 | 0.80 | -0.03 | 0.80 | 71 | 68.0 (9.7) | 0.48 |
| ('Percentage R', 'Isthmuscingulate') | Depression | 0.12 | 0.06 | 0.11 | 0.08 | 262 | 57.8 (11.9) | 0.66 |
| ('Percentage R', 'Isthmuscingulate') | Cancer | -0.06 | 0.50 | -0.05 | 0.60 | 127 | 64.5 (10.4) | 0.46 |
| ('Percentage R', 'Isthmuscingulate') | Diabetes | 0.09 | 0.40 | 0.07 | 0.50 | 120 | 60.6 (10.4) | 0.53 |
| ('Percentage R', 'Isthmuscingulate') | CHF | 0.03 | 0.80 | 0.03 | 0.80 | 78 | 65.4 (11.1) | 0.5 |
| ('Percentage R', 'Isthmuscingulate') | Periph. Vasc. D. | 0.10 | 0.40 | 0.08 | 0.50 | 87 | 64.7 (10.9) | 0.47 |
| ('Percentage R', 'Isthmuscingulate') | Cereb. Vasc. D. | 0.04 | 0.60 | 0.06 | 0.50 | 136 | 63.1 (10.8) | 0.52 |
| ('Percentage R', 'Isthmuscingulate') | Charlson CI < 2 | -0.04 | 0.60 | -0.04 | 0.60 | 240 | 56.9 (11.9) | 0.55 |
| ('Percentage R', 'Isthmuscingulate') | Charlson CI 2-4 | -0.01 | 0.80 | -0.01 | 0.90 | 201 | 61.6 (12.6) | 0.59 |
| ('Percentage R', 'Isthmuscingulate') | Charlson CI > 5 | 0.15 | 0.20 | 0.15 | 0.20 | 82 | 65.4 (10.5) | 0.48 |
| ('Percentage R', 'Isthmuscingulate') | None of above | -0.02 | 0.90 | -0.02 | 0.80 | 131 | 56.6 (12.9) | 0.49 |
| ('Percentage R', 'Isthmuscingulate') | None of above AND CCI<2 | -0.05 | 0.70 | -0.02 | 0.90 | 86 | 55.1 (12.1) | 0.5 |
| ('Percentage R', 'Isthmuscingulate') |  |  |  |  |  |  |  |  |
| ('Percentage R', 'Amygdala') | Dementia | 0.01 | 0.90 | -0.01 | 0.90 | 36 | 73.3 (11.2) | 0.58 |
| ('Percentage R', 'Amygdala') | MCI | -0.01 | 1.00 | -0.01 | 0.90 | 71 | 68.0 (9.7) | 0.48 |
| ('Percentage R', 'Amygdala') | Depression | 0.01 | 0.80 | 0.00 | 1.00 | 262 | 57.8 (11.9) | 0.66 |
| ('Percentage R', 'Amygdala') | Cancer | -0.06 | 0.50 | -0.12 | 0.20 | 127 | 64.5 (10.4) | 0.46 |
| ('Percentage R', 'Amygdala') | Diabetes | -0.04 | 0.70 | -0.05 | 0.60 | 120 | 60.6 (10.4) | 0.53 |
| ('Percentage R', 'Amygdala') | CHF | -0.10 | 0.40 | -0.11 | 0.40 | 78 | 65.4 (11.1) | 0.5 |
| ('Percentage R', 'Amygdala') | Periph. Vasc. D. | -0.01 | 0.90 | -0.05 | 0.70 | 87 | 64.7 (10.9) | 0.47 |
| ('Percentage R', 'Amygdala') | Cereb. Vasc. D. | -0.01 | 0.90 | -0.07 | 0.40 | 136 | 63.1 (10.8) | 0.52 |
| ('Percentage R', 'Amygdala') | Charlson CI < 2 | 0.06 | 0.40 | 0.04 | 0.50 | 240 | 56.9 (11.9) | 0.55 |
| ('Percentage R', 'Amygdala') | Charlson CI 2-4 | -0.14 | 0.06 | -0.16 | 0.03 | 201 | 61.6 (12.6) | 0.59 |
| ('Percentage R', 'Amygdala') | Charlson CI > 5 | 0.06 | 0.60 | 0.05 | 0.70 | 82 | 65.4 (10.5) | 0.48 |
| ('Percentage R', 'Amygdala') | None of above | 0.15 | 0.08 | 0.11 | 0.20 | 131 | 56.6 (12.9) | 0.49 |
| ('Percentage R', 'Amygdala') | None of above AND CCI<2 | 0.10 | 0.40 | 0.06 | 0.60 | 86 | 55.1 (12.1) | 0.5 |
| ('Percentage R', 'Amygdala') |  |  |  |  |  |  |  |  |
| ('Percentage R', 'Brainstem') | Dementia | -0.04 | 0.80 | -0.04 | 0.80 | 36 | 73.3 (11.2) | 0.58 |
| ('Percentage R', 'Brainstem') | MCI | 0.07 | 0.60 | 0.07 | 0.60 | 71 | 68.0 (9.7) | 0.48 |
| ('Percentage R', 'Brainstem') | Depression | -0.05 | 0.40 | -0.03 | 0.70 | 262 | 57.8 (11.9) | 0.66 |
| ('Percentage R', 'Brainstem') | Cancer | -0.10 | 0.30 | -0.12 | 0.20 | 127 | 64.5 (10.4) | 0.46 |
| ('Percentage R', 'Brainstem') | Diabetes | -0.18 | 0.05 | -0.15 | 0.10 | 120 | 60.6 (10.4) | 0.53 |
| ('Percentage R', 'Brainstem') | CHF | 0.05 | 0.70 | 0.05 | 0.70 | 78 | 65.4 (11.1) | 0.5 |
| ('Percentage R', 'Brainstem') | Periph. Vasc. D. | 0.00 | 1.00 | 0.01 | 1.00 | 87 | 64.7 (10.9) | 0.47 |
| ('Percentage R', 'Brainstem') | Cereb. Vasc. D. | -0.01 | 0.90 | -0.03 | 0.80 | 136 | 63.1 (10.8) | 0.52 |
| ('Percentage R', 'Brainstem') | Charlson CI < 2 | 0.05 | 0.40 | 0.05 | 0.40 | 240 | 56.9 (11.9) | 0.55 |
| ('Percentage R', 'Brainstem') | Charlson CI 2-4 | -0.11 | 0.10 | -0.10 | 0.20 | 201 | 61.6 (12.6) | 0.59 |
| ('Percentage R', 'Brainstem') | Charlson CI > 5 | 0.02 | 0.90 | 0.02 | 0.90 | 82 | 65.4 (10.5) | 0.48 |
| ('Percentage R', 'Brainstem') | None of above | 0.18 | 0.04 | 0.22 | 0.01 | 131 | 56.6 (12.9) | 0.49 |
| ('Percentage R', 'Brainstem') | None of above AND CCI<2 | 0.19 | 0.08 | 0.22 | 0.04 | 86 | 55.1 (12.1) | 0.5 |
| ('Percentage R', 'Brainstem') |  |  |  |  |  |  |  |  |
| ('Mean alpha during W', 'Thalamus') | Dementia | -0.10 | 0.50 | -0.14 | 0.40 | 36 | 73.3 (11.2) | 0.58 |
| ('Mean alpha during W', 'Thalamus') | MCI | 0.27 | 0.02 | 0.23 | 0.06 | 71 | 68.0 (9.7) | 0.48 |
| ('Mean alpha during W', 'Thalamus') | Depression | 0.02 | 0.80 | 0.05 | 0.40 | 262 | 57.8 (11.9) | 0.66 |
| ('Mean alpha during W', 'Thalamus') | Cancer | 0.03 | 0.80 | 0.00 | 1.00 | 127 | 64.5 (10.4) | 0.46 |
| ('Mean alpha during W', 'Thalamus') | Diabetes | -0.05 | 0.60 | -0.01 | 0.90 | 120 | 60.6 (10.4) | 0.53 |
| ('Mean alpha during W', 'Thalamus') | CHF | -0.08 | 0.50 | -0.10 | 0.40 | 78 | 65.4 (11.1) | 0.5 |
| ('Mean alpha during W', 'Thalamus') | Periph. Vasc. D. | -0.04 | 0.70 | 0.04 | 0.70 | 87 | 64.7 (10.9) | 0.47 |
| ('Mean alpha during W', 'Thalamus') | Cereb. Vasc. D. | 0.10 | 0.30 | 0.07 | 0.40 | 136 | 63.1 (10.8) | 0.52 |
| ('Mean alpha during W', 'Thalamus') | Charlson CI < 2 | 0.08 | 0.20 | 0.05 | 0.50 | 240 | 56.9 (11.9) | 0.55 |
| ('Mean alpha during W', 'Thalamus') | Charlson CI 2-4 | 0.00 | 1.00 | -0.01 | 0.90 | 201 | 61.6 (12.6) | 0.59 |
| ('Mean alpha during W', 'Thalamus') | Charlson CI > 5 | 0.10 | 0.40 | 0.08 | 0.50 | 82 | 65.4 (10.5) | 0.48 |
| ('Mean alpha during W', 'Thalamus') | None of above | 0.08 | 0.30 | 0.04 | 0.70 | 131 | 56.6 (12.9) | 0.49 |
| ('Mean alpha during W', 'Thalamus') | None of above AND CCI<2 | 0.04 | 0.70 | -0.01 | 0.90 | 86 | 55.1 (12.1) | 0.5 |
| ('Mean alpha during W', 'Thalamus') |  |  |  |  |  |  |  |  |
| ('Mean alpha during W', 'Total ventricle volume') | Dementia | -0.01 | 0.90 | -0.03 | 0.90 | 36 | 73.3 (11.2) | 0.58 |
| ('Mean alpha during W', 'Total ventricle volume') | MCI | -0.23 | 0.06 | -0.17 | 0.20 | 71 | 68.0 (9.7) | 0.48 |
| ('Mean alpha during W', 'Total ventricle volume') | Depression | 0.14 | 0.02 | 0.14 | 0.03 | 262 | 57.8 (11.9) | 0.66 |
| ('Mean alpha during W', 'Total ventricle volume') | Cancer | -0.06 | 0.50 | -0.06 | 0.50 | 127 | 64.5 (10.4) | 0.46 |
| ('Mean alpha during W', 'Total ventricle volume') | Diabetes | 0.14 | 0.10 | 0.12 | 0.20 | 120 | 60.6 (10.4) | 0.53 |
| ('Mean alpha during W', 'Total ventricle volume') | CHF | -0.07 | 0.60 | -0.10 | 0.40 | 78 | 65.4 (11.1) | 0.5 |
| ('Mean alpha during W', 'Total ventricle volume') | Periph. Vasc. D. | 0.22 | 0.04 | 0.18 | 0.10 | 87 | 64.7 (10.9) | 0.47 |
| ('Mean alpha during W', 'Total ventricle volume') | Cereb. Vasc. D. | 0.03 | 0.70 | 0.07 | 0.40 | 136 | 63.1 (10.8) | 0.52 |
| ('Mean alpha during W', 'Total ventricle volume') | Charlson CI < 2 | -0.09 | 0.20 | -0.06 | 0.30 | 240 | 56.9 (11.9) | 0.55 |
| ('Mean alpha during W', 'Total ventricle volume') | Charlson CI 2-4 | -0.06 | 0.40 | -0.06 | 0.40 | 201 | 61.6 (12.6) | 0.59 |
| ('Mean alpha during W', 'Total ventricle volume') | Charlson CI > 5 | 0.05 | 0.70 | 0.06 | 0.60 | 82 | 65.4 (10.5) | 0.48 |
| ('Mean alpha during W', 'Total ventricle volume') | None of above | -0.11 | 0.20 | -0.07 | 0.40 | 131 | 56.6 (12.9) | 0.49 |
| ('Mean alpha during W', 'Total ventricle volume') | None of above AND CCI<2 | -0.02 | 0.90 | 0.04 | 0.70 | 86 | 55.1 (12.1) | 0.5 |
| ('Mean alpha during W', 'Total ventricle volume') |  |  |  |  |  |  |  |  |
| ('Total slow and delta power', 'MMSE') | Dementia | -0.03 | 0.90 | -0.15 | 0.50 | 23 | 71.8 (12.2) | 0.57 |
| ('Total slow and delta power', 'MMSE') | MCI | -0.06 | 0.70 | -0.15 | 0.30 | 55 | 68.0 (10.1) | 0.49 |
| ('Total slow and delta power', 'MMSE') | Depression | 0.02 | 0.90 | -0.03 | 0.80 | 54 | 61.7 (10.6) | 0.46 |
| ('Total slow and delta power', 'MMSE') | Cancer | -0.03 | 0.90 | -0.36 | 0.10 | 22 | 67.0 (9.3) | 0.32 |
| ('Total slow and delta power', 'MMSE') | Diabetes | 0.12 | 0.70 | 0.06 | 0.90 | 14 | 63.0 (8.1) | 0.21 |
| ('Total slow and delta power', 'MMSE') | CHF | -0.12 | 0.70 | -0.33 | 0.40 | 11 | 69.1 (10.6) | 0.36 |
| ('Total slow and delta power', 'MMSE') | Periph. Vasc. D. | 0.07 | 0.80 | 0.08 | 0.80 | 13 | 67.1 (9.2) | 0.15 |
| ('Total slow and delta power', 'MMSE') | Cereb. Vasc. D. | 0.13 | 0.60 | -0.18 | 0.40 | 23 | 67.2 (10.6) | 0.39 |
| ('Total slow and delta power', 'MMSE') | Charlson CI < 2 | 0.01 | 0.90 | -0.08 | 0.60 | 61 | 62.3 (11.9) | 0.41 |
| ('Total slow and delta power', 'MMSE') | Charlson CI 2-4 | 0.03 | 0.80 | -0.13 | 0.40 | 57 | 66.8 (10.7) | 0.49 |
| ('Total slow and delta power', 'MMSE') | Charlson CI > 5 | -0.04 | 0.90 | -0.05 | 0.80 | 21 | 68.5 (10.7) | 0.62 |
| ('Total slow and delta power', 'MMSE') | None of above | -0.29 | 0.30 | -0.24 | 0.40 | 15 | 59.2 (12.5) | 0.4 |
| ('Total slow and delta power', 'MMSE') | None of above AND CCI<2 | -0.31 | 0.30 | -0.34 | 0.30 | 12 | 60.5 (13.7) | 0.33 |
| ('Total slow and delta power', 'MMSE') |  |  |  |  |  |  |  |  |
| ('SO rate frontal', 'MMSE') | Dementia | -0.12 | 0.60 | -0.26 | 0.30 | 23 | 71.8 (12.2) | 0.57 |
| ('SO rate frontal', 'MMSE') | MCI | -0.11 | 0.40 | -0.17 | 0.20 | 55 | 68.0 (10.1) | 0.49 |
| ('SO rate frontal', 'MMSE') | Depression | 0.01 | 1.00 | -0.02 | 0.90 | 54 | 61.7 (10.6) | 0.46 |
| ('SO rate frontal', 'MMSE') | Cancer | -0.04 | 0.90 | -0.32 | 0.20 | 22 | 67.0 (9.3) | 0.32 |
| ('SO rate frontal', 'MMSE') | Diabetes | 0.02 | 0.90 | -0.01 | 1.00 | 14 | 63.0 (8.1) | 0.21 |
| ('SO rate frontal', 'MMSE') | CHF | -0.14 | 0.70 | -0.39 | 0.30 | 11 | 69.1 (10.6) | 0.36 |
| ('SO rate frontal', 'MMSE') | Periph. Vasc. D. | -0.09 | 0.80 | -0.07 | 0.80 | 13 | 67.1 (9.2) | 0.15 |
| ('SO rate frontal', 'MMSE') | Cereb. Vasc. D. | 0.16 | 0.50 | -0.13 | 0.60 | 23 | 67.2 (10.6) | 0.39 |
| ('SO rate frontal', 'MMSE') | Charlson CI < 2 | 0.02 | 0.90 | -0.05 | 0.70 | 61 | 62.3 (11.9) | 0.41 |
| ('SO rate frontal', 'MMSE') | Charlson CI 2-4 | -0.05 | 0.70 | -0.19 | 0.20 | 57 | 66.8 (10.7) | 0.49 |
| ('SO rate frontal', 'MMSE') | Charlson CI > 5 | -0.02 | 0.90 | -0.05 | 0.80 | 21 | 68.5 (10.7) | 0.62 |
| ('SO rate frontal', 'MMSE') | None of above | -0.40 | 0.10 | -0.39 | 0.20 | 15 | 59.2 (12.5) | 0.4 |
| ('SO rate frontal', 'MMSE') | None of above AND CCI<2 | -0.44 | 0.20 | -0.53 | 0.10 | 12 | 60.5 (13.7) | 0.33 |
| ('SO rate frontal', 'MMSE') |  |  |  |  |  |  |  |  |
| ('Anterior cortex', 'MMSE') | Dementia | -0.07 | 0.70 | -0.16 | 0.50 | 23 | 71.8 (12.2) | 0.57 |
| ('Anterior cortex', 'MMSE') | MCI | 0.11 | 0.40 | 0.06 | 0.60 | 55 | 68.0 (10.1) | 0.49 |
| ('Anterior cortex', 'MMSE') | Depression | -0.21 | 0.10 | -0.23 | 0.10 | 54 | 61.7 (10.6) | 0.46 |
| ('Anterior cortex', 'MMSE') | Cancer | -0.07 | 0.80 | -0.13 | 0.60 | 22 | 67.0 (9.3) | 0.32 |
| ('Anterior cortex', 'MMSE') | Diabetes | 0.15 | 0.60 | 0.11 | 0.70 | 14 | 63.0 (8.1) | 0.21 |
| ('Anterior cortex', 'MMSE') | CHF | 0.13 | 0.70 | 0.05 | 0.90 | 11 | 69.1 (10.6) | 0.36 |
| ('Anterior cortex', 'MMSE') | Periph. Vasc. D. | 0.11 | 0.70 | 0.10 | 0.80 | 13 | 67.1 (9.2) | 0.15 |
| ('Anterior cortex', 'MMSE') | Cereb. Vasc. D. | 0.02 | 0.90 | 0.05 | 0.80 | 23 | 67.2 (10.6) | 0.39 |
| ('Anterior cortex', 'MMSE') | Charlson CI < 2 | -0.02 | 0.90 | -0.09 | 0.50 | 61 | 62.3 (11.9) | 0.41 |
| ('Anterior cortex', 'MMSE') | Charlson CI 2-4 | -0.05 | 0.70 | -0.10 | 0.50 | 57 | 66.8 (10.7) | 0.49 |
| ('Anterior cortex', 'MMSE') | Charlson CI > 5 | 0.23 | 0.30 | -0.05 | 0.90 | 21 | 68.5 (10.7) | 0.62 |
| ('Anterior cortex', 'MMSE') | None of above | -0.05 | 0.80 | -0.02 | 0.90 | 15 | 59.2 (12.5) | 0.4 |
| ('Anterior cortex', 'MMSE') | None of above AND CCI<2 | 0.06 | 0.80 | 0.06 | 0.90 | 12 | 60.5 (13.7) | 0.33 |
| ('Anterior cortex', 'MMSE') |  |  |  |  |  |  |  |  |
| ('Thalamus', 'MMSE') | Dementia | 0.00 | 1.00 | -0.14 | 0.50 | 23 | 71.8 (12.2) | 0.57 |
| ('Thalamus', 'MMSE') | MCI | -0.05 | 0.70 | -0.19 | 0.20 | 55 | 68.0 (10.1) | 0.49 |
| ('Thalamus', 'MMSE') | Depression | 0.14 | 0.30 | 0.14 | 0.30 | 54 | 61.7 (10.6) | 0.46 |
| ('Thalamus', 'MMSE') | Cancer | -0.04 | 0.80 | -0.18 | 0.50 | 22 | 67.0 (9.3) | 0.32 |
| ('Thalamus', 'MMSE') | Diabetes | -0.03 | 0.90 | -0.21 | 0.50 | 14 | 63.0 (8.1) | 0.21 |
| ('Thalamus', 'MMSE') | CHF | 0.27 | 0.40 | 0.19 | 0.60 | 11 | 69.1 (10.6) | 0.36 |
| ('Thalamus', 'MMSE') | Periph. Vasc. D. | 0.55 | 0.05 | 0.44 | 0.20 | 13 | 67.1 (9.2) | 0.15 |
| ('Thalamus', 'MMSE') | Cereb. Vasc. D. | 0.20 | 0.40 | 0.00 | 1.00 | 23 | 67.2 (10.6) | 0.39 |
| ('Thalamus', 'MMSE') | Charlson CI < 2 | 0.16 | 0.20 | -0.01 | 0.90 | 61 | 62.3 (11.9) | 0.41 |
| ('Thalamus', 'MMSE') | Charlson CI 2-4 | 0.31 | 0.02 | 0.13 | 0.30 | 57 | 66.8 (10.7) | 0.49 |
| ('Thalamus', 'MMSE') | Charlson CI > 5 | 0.25 | 0.30 | 0.20 | 0.40 | 21 | 68.5 (10.7) | 0.62 |
| ('Thalamus', 'MMSE') | None of above | 0.04 | 0.90 | 0.12 | 0.70 | 15 | 59.2 (12.5) | 0.4 |
| ('Thalamus', 'MMSE') | None of above AND CCI<2 | 0.12 | 0.70 | 0.17 | 0.60 | 12 | 60.5 (13.7) | 0.33 |
| ('Thalamus', 'MMSE') |  |  |  |  |  |  |  |  |
| ('Slow spindles density frontal', 'MMSE') | Dementia | 0.27 | 0.20 | 0.26 | 0.20 | 23 | 71.8 (12.2) | 0.57 |
| ('Slow spindles density frontal', 'MMSE') | MCI | 0.27 | 0.04 | 0.26 | 0.06 | 55 | 68.0 (10.1) | 0.49 |
| ('Slow spindles density frontal', 'MMSE') | Depression | -0.08 | 0.60 | -0.07 | 0.60 | 54 | 61.7 (10.6) | 0.46 |
| ('Slow spindles density frontal', 'MMSE') | Cancer | 0.18 | 0.40 | 0.05 | 0.80 | 22 | 67.0 (9.3) | 0.32 |
| ('Slow spindles density frontal', 'MMSE') | Diabetes | 0.37 | 0.20 | 0.34 | 0.30 | 14 | 63.0 (8.1) | 0.21 |
| ('Slow spindles density frontal', 'MMSE') | CHF | 0.39 | 0.20 | 0.33 | 0.40 | 11 | 69.1 (10.6) | 0.36 |
| ('Slow spindles density frontal', 'MMSE') | Periph. Vasc. D. | 0.15 | 0.60 | -0.12 | 0.70 | 13 | 67.1 (9.2) | 0.15 |
| ('Slow spindles density frontal', 'MMSE') | Cereb. Vasc. D. | 0.33 | 0.10 | 0.35 | 0.10 | 23 | 67.2 (10.6) | 0.39 |
| ('Slow spindles density frontal', 'MMSE') | Charlson CI < 2 | 0.20 | 0.10 | 0.14 | 0.30 | 61 | 62.3 (11.9) | 0.41 |
| ('Slow spindles density frontal', 'MMSE') | Charlson CI 2-4 | 0.38 | 0.00 | 0.33 | 0.01 | 57 | 66.8 (10.7) | 0.49 |
| ('Slow spindles density frontal', 'MMSE') | Charlson CI > 5 | 0.00 | 1.00 | -0.18 | 0.50 | 21 | 68.5 (10.7) | 0.62 |
| ('Slow spindles density frontal', 'MMSE') | None of above | 0.07 | 0.80 | 0.26 | 0.40 | 15 | 59.2 (12.5) | 0.4 |
| ('Slow spindles density frontal', 'MMSE') | None of above AND CCI<2 | 0.03 | 0.90 | 0.20 | 0.60 | 12 | 60.5 (13.7) | 0.33 |
| ('Slow spindles density frontal', 'MMSE') |  |  |  |  |  |  |  |  |
| ('Fast spindles density central', 'MMSE') | Dementia | 0.01 | 1.00 | -0.01 | 1.00 | 23 | 71.8 (12.2) | 0.57 |
| ('Fast spindles density central', 'MMSE') | MCI | 0.06 | 0.70 | -0.01 | 1.00 | 55 | 68.0 (10.1) | 0.49 |
| ('Fast spindles density central', 'MMSE') | Depression | -0.08 | 0.60 | -0.07 | 0.60 | 54 | 61.7 (10.6) | 0.46 |
| ('Fast spindles density central', 'MMSE') | Cancer | 0.05 | 0.80 | 0.03 | 0.90 | 22 | 67.0 (9.3) | 0.32 |
| ('Fast spindles density central', 'MMSE') | Diabetes | 0.27 | 0.30 | 0.23 | 0.50 | 14 | 63.0 (8.1) | 0.21 |
| ('Fast spindles density central', 'MMSE') | CHF | 0.25 | 0.50 | 0.21 | 0.60 | 11 | 69.1 (10.6) | 0.36 |
| ('Fast spindles density central', 'MMSE') | Periph. Vasc. D. | 0.05 | 0.90 | -0.18 | 0.60 | 13 | 67.1 (9.2) | 0.15 |
| ('Fast spindles density central', 'MMSE') | Cereb. Vasc. D. | 0.24 | 0.30 | 0.27 | 0.20 | 23 | 67.2 (10.6) | 0.39 |
| ('Fast spindles density central', 'MMSE') | Charlson CI < 2 | 0.25 | 0.05 | 0.17 | 0.20 | 61 | 62.3 (11.9) | 0.41 |
| ('Fast spindles density central', 'MMSE') | Charlson CI 2-4 | 0.32 | 0.01 | 0.20 | 0.10 | 57 | 66.8 (10.7) | 0.49 |
| ('Fast spindles density central', 'MMSE') | Charlson CI > 5 | 0.20 | 0.40 | 0.03 | 0.90 | 21 | 68.5 (10.7) | 0.62 |
| ('Fast spindles density central', 'MMSE') | None of above | 0.01 | 1.00 | 0.21 | 0.50 | 15 | 59.2 (12.5) | 0.4 |
| ('Fast spindles density central', 'MMSE') | None of above AND CCI<2 | 0.09 | 0.80 | 0.22 | 0.50 | 12 | 60.5 (13.7) | 0.33 |
| ('Fast spindles density central', 'MMSE') |  |  |  |  |  |  |  |  |
| ('Hippocampus', 'MMSE') | Dementia | 0.42 | 0.04 | 0.43 | 0.05 | 23 | 71.8 (12.2) | 0.57 |
| ('Hippocampus', 'MMSE') | MCI | 0.08 | 0.60 | 0.02 | 0.90 | 55 | 68.0 (10.1) | 0.49 |
| ('Hippocampus', 'MMSE') | Depression | -0.11 | 0.40 | -0.13 | 0.40 | 54 | 61.7 (10.6) | 0.46 |
| ('Hippocampus', 'MMSE') | Cancer | -0.37 | 0.09 | -0.43 | 0.06 | 22 | 67.0 (9.3) | 0.32 |
| ('Hippocampus', 'MMSE') | Diabetes | 0.05 | 0.90 | 0.08 | 0.80 | 14 | 63.0 (8.1) | 0.21 |
| ('Hippocampus', 'MMSE') | CHF | -0.13 | 0.70 | -0.18 | 0.60 | 11 | 69.1 (10.6) | 0.36 |
| ('Hippocampus', 'MMSE') | Periph. Vasc. D. | 0.13 | 0.70 | 0.07 | 0.80 | 13 | 67.1 (9.2) | 0.15 |
| ('Hippocampus', 'MMSE') | Cereb. Vasc. D. | 0.02 | 0.90 | -0.04 | 0.90 | 23 | 67.2 (10.6) | 0.39 |
| ('Hippocampus', 'MMSE') | Charlson CI < 2 | 0.36 | 0.01 | 0.29 | 0.02 | 61 | 62.3 (11.9) | 0.41 |
| ('Hippocampus', 'MMSE') | Charlson CI 2-4 | 0.13 | 0.30 | 0.05 | 0.70 | 57 | 66.8 (10.7) | 0.49 |
| ('Hippocampus', 'MMSE') | Charlson CI > 5 | 0.24 | 0.30 | 0.11 | 0.60 | 21 | 68.5 (10.7) | 0.62 |
| ('Hippocampus', 'MMSE') | None of above | 0.25 | 0.40 | 0.26 | 0.40 | 15 | 59.2 (12.5) | 0.4 |
| ('Hippocampus', 'MMSE') | None of above AND CCI<2 | 0.40 | 0.20 | 0.42 | 0.20 | 12 | 60.5 (13.7) | 0.33 |
| ('Hippocampus', 'MMSE') |  |  |  |  |  |  |  |  |
| ('Percentage R', 'MMSE') | Dementia | 0.02 | 0.90 | 0.04 | 0.90 | 23 | 71.8 (12.2) | 0.57 |
| ('Percentage R', 'MMSE') | MCI | 0.32 | 0.02 | 0.33 | 0.02 | 55 | 68.0 (10.1) | 0.49 |
| ('Percentage R', 'MMSE') | Depression | 0.23 | 0.09 | 0.26 | 0.06 | 54 | 61.7 (10.6) | 0.46 |
| ('Percentage R', 'MMSE') | Cancer | 0.33 | 0.10 | 0.33 | 0.20 | 22 | 67.0 (9.3) | 0.32 |
| ('Percentage R', 'MMSE') | Diabetes | 0.31 | 0.30 | 0.41 | 0.20 | 14 | 63.0 (8.1) | 0.21 |
| ('Percentage R', 'MMSE') | CHF | 0.52 | 0.10 | 0.49 | 0.20 | 11 | 69.1 (10.6) | 0.36 |
| ('Percentage R', 'MMSE') | Periph. Vasc. D. | 0.33 | 0.30 | 0.31 | 0.30 | 13 | 67.1 (9.2) | 0.15 |
| ('Percentage R', 'MMSE') | Cereb. Vasc. D. | 0.29 | 0.20 | 0.26 | 0.30 | 23 | 67.2 (10.6) | 0.39 |
| ('Percentage R', 'MMSE') | Charlson CI < 2 | 0.05 | 0.70 | 0.06 | 0.60 | 61 | 62.3 (11.9) | 0.41 |
| ('Percentage R', 'MMSE') | Charlson CI 2-4 | 0.24 | 0.08 | 0.23 | 0.09 | 57 | 66.8 (10.7) | 0.49 |
| ('Percentage R', 'MMSE') | Charlson CI > 5 | 0.38 | 0.09 | 0.37 | 0.10 | 21 | 68.5 (10.7) | 0.62 |
| ('Percentage R', 'MMSE') | None of above | -0.12 | 0.70 | -0.20 | 0.50 | 15 | 59.2 (12.5) | 0.4 |
| ('Percentage R', 'MMSE') | None of above AND CCI<2 | -0.20 | 0.50 | -0.29 | 0.40 | 12 | 60.5 (13.7) | 0.33 |
| ('Percentage R', 'MMSE') |  |  |  |  |  |  |  |  |
| ('Isthmuscingulate', 'MMSE') | Dementia | -0.07 | 0.80 | -0.03 | 0.90 | 23 | 71.8 (12.2) | 0.57 |
| ('Isthmuscingulate', 'MMSE') | MCI | 0.15 | 0.30 | 0.13 | 0.40 | 55 | 68.0 (10.1) | 0.49 |
| ('Isthmuscingulate', 'MMSE') | Depression | -0.21 | 0.10 | -0.21 | 0.10 | 54 | 61.7 (10.6) | 0.46 |
| ('Isthmuscingulate', 'MMSE') | Cancer | -0.26 | 0.20 | -0.14 | 0.50 | 22 | 67.0 (9.3) | 0.32 |
| ('Isthmuscingulate', 'MMSE') | Diabetes | 0.36 | 0.20 | 0.33 | 0.30 | 14 | 63.0 (8.1) | 0.21 |
| ('Isthmuscingulate', 'MMSE') | CHF | -0.25 | 0.50 | -0.28 | 0.50 | 11 | 69.1 (10.6) | 0.36 |
| ('Isthmuscingulate', 'MMSE') | Periph. Vasc. D. | 0.03 | 0.90 | 0.41 | 0.20 | 13 | 67.1 (9.2) | 0.15 |
| ('Isthmuscingulate', 'MMSE') | Cereb. Vasc. D. | -0.05 | 0.80 | 0.07 | 0.80 | 23 | 67.2 (10.6) | 0.39 |
| ('Isthmuscingulate', 'MMSE') | Charlson CI < 2 | 0.08 | 0.50 | 0.13 | 0.30 | 61 | 62.3 (11.9) | 0.41 |
| ('Isthmuscingulate', 'MMSE') | Charlson CI 2-4 | 0.04 | 0.80 | 0.07 | 0.60 | 57 | 66.8 (10.7) | 0.49 |
| ('Isthmuscingulate', 'MMSE') | Charlson CI > 5 | -0.04 | 0.90 | -0.25 | 0.30 | 21 | 68.5 (10.7) | 0.62 |
| ('Isthmuscingulate', 'MMSE') | None of above | 0.22 | 0.40 | 0.30 | 0.30 | 15 | 59.2 (12.5) | 0.4 |
| ('Isthmuscingulate', 'MMSE') | None of above AND CCI<2 | 0.30 | 0.30 | 0.39 | 0.30 | 12 | 60.5 (13.7) | 0.33 |
| ('Isthmuscingulate', 'MMSE') |  |  |  |  |  |  |  |  |
| ('Amygdala', 'MMSE') | Dementia | 0.21 | 0.30 | 0.19 | 0.40 | 23 | 71.8 (12.2) | 0.57 |
| ('Amygdala', 'MMSE') | MCI | 0.26 | 0.06 | 0.22 | 0.10 | 55 | 68.0 (10.1) | 0.49 |
| ('Amygdala', 'MMSE') | Depression | -0.01 | 1.00 | -0.02 | 0.90 | 54 | 61.7 (10.6) | 0.46 |
| ('Amygdala', 'MMSE') | Cancer | 0.03 | 0.90 | -0.03 | 0.90 | 22 | 67.0 (9.3) | 0.32 |
| ('Amygdala', 'MMSE') | Diabetes | 0.14 | 0.60 | 0.12 | 0.70 | 14 | 63.0 (8.1) | 0.21 |
| ('Amygdala', 'MMSE') | CHF | 0.49 | 0.10 | 0.43 | 0.20 | 11 | 69.1 (10.6) | 0.36 |
| ('Amygdala', 'MMSE') | Periph. Vasc. D. | 0.40 | 0.20 | 0.35 | 0.30 | 13 | 67.1 (9.2) | 0.15 |
| ('Amygdala', 'MMSE') | Cereb. Vasc. D. | 0.23 | 0.30 | 0.24 | 0.30 | 23 | 67.2 (10.6) | 0.39 |
| ('Amygdala', 'MMSE') | Charlson CI < 2 | 0.26 | 0.04 | 0.15 | 0.20 | 61 | 62.3 (11.9) | 0.41 |
| ('Amygdala', 'MMSE') | Charlson CI 2-4 | 0.33 | 0.01 | 0.26 | 0.06 | 57 | 66.8 (10.7) | 0.49 |
| ('Amygdala', 'MMSE') | Charlson CI > 5 | 0.60 | 0.00 | 0.58 | 0.01 | 21 | 68.5 (10.7) | 0.62 |
| ('Amygdala', 'MMSE') | None of above | 0.37 | 0.20 | 0.41 | 0.20 | 15 | 59.2 (12.5) | 0.4 |
| ('Amygdala', 'MMSE') | None of above AND CCI<2 | 0.51 | 0.09 | 0.56 | 0.10 | 12 | 60.5 (13.7) | 0.33 |
| ('Amygdala', 'MMSE') |  |  |  |  |  |  |  |  |
| ('Brainstem', 'MMSE') | Dementia | -0.08 | 0.70 | -0.09 | 0.70 | 23 | 71.8 (12.2) | 0.57 |
| ('Brainstem', 'MMSE') | MCI | -0.07 | 0.60 | -0.08 | 0.60 | 55 | 68.0 (10.1) | 0.49 |
| ('Brainstem', 'MMSE') | Depression | -0.02 | 0.90 | -0.07 | 0.60 | 54 | 61.7 (10.6) | 0.46 |
| ('Brainstem', 'MMSE') | Cancer | -0.27 | 0.20 | -0.33 | 0.20 | 22 | 67.0 (9.3) | 0.32 |
| ('Brainstem', 'MMSE') | Diabetes | -0.60 | 0.02 | -0.61 | 0.04 | 14 | 63.0 (8.1) | 0.21 |
| ('Brainstem', 'MMSE') | CHF | -0.16 | 0.60 | -0.03 | 0.90 | 11 | 69.1 (10.6) | 0.36 |
| ('Brainstem', 'MMSE') | Periph. Vasc. D. | 0.14 | 0.70 | 0.06 | 0.90 | 13 | 67.1 (9.2) | 0.15 |
| ('Brainstem', 'MMSE') | Cereb. Vasc. D. | -0.09 | 0.70 | -0.25 | 0.30 | 23 | 67.2 (10.6) | 0.39 |
| ('Brainstem', 'MMSE') | Charlson CI < 2 | 0.03 | 0.80 | 0.02 | 0.90 | 61 | 62.3 (11.9) | 0.41 |
| ('Brainstem', 'MMSE') | Charlson CI 2-4 | 0.05 | 0.70 | 0.03 | 0.80 | 57 | 66.8 (10.7) | 0.49 |
| ('Brainstem', 'MMSE') | Charlson CI > 5 | -0.04 | 0.90 | 0.14 | 0.60 | 21 | 68.5 (10.7) | 0.62 |
| ('Brainstem', 'MMSE') | None of above | 0.17 | 0.50 | 0.18 | 0.60 | 15 | 59.2 (12.5) | 0.4 |
| ('Brainstem', 'MMSE') | None of above AND CCI<2 | 0.26 | 0.40 | 0.36 | 0.30 | 12 | 60.5 (13.7) | 0.33 |
| ('Brainstem', 'MMSE') |  |  |  |  |  |  |  |  |
| ('Mean alpha during W', 'MMSE') | Dementia | 0.47 | 0.02 | 0.47 | 0.03 | 23 | 71.8 (12.2) | 0.57 |
| ('Mean alpha during W', 'MMSE') | MCI | 0.03 | 0.80 | 0.00 | 1.00 | 55 | 68.0 (10.1) | 0.49 |
| ('Mean alpha during W', 'MMSE') | Depression | -0.10 | 0.50 | -0.09 | 0.50 | 54 | 61.7 (10.6) | 0.46 |
| ('Mean alpha during W', 'MMSE') | Cancer | -0.09 | 0.70 | -0.17 | 0.50 | 22 | 67.0 (9.3) | 0.32 |
| ('Mean alpha during W', 'MMSE') | Diabetes | 0.09 | 0.80 | 0.09 | 0.80 | 14 | 63.0 (8.1) | 0.21 |
| ('Mean alpha during W', 'MMSE') | CHF | -0.28 | 0.40 | -0.33 | 0.40 | 11 | 69.1 (10.6) | 0.36 |
| ('Mean alpha during W', 'MMSE') | Periph. Vasc. D. | -0.32 | 0.30 | -0.26 | 0.40 | 13 | 67.1 (9.2) | 0.15 |
| ('Mean alpha during W', 'MMSE') | Cereb. Vasc. D. | -0.15 | 0.50 | -0.06 | 0.80 | 23 | 67.2 (10.6) | 0.39 |
| ('Mean alpha during W', 'MMSE') | Charlson CI < 2 | 0.04 | 0.80 | 0.00 | 1.00 | 61 | 62.3 (11.9) | 0.41 |
| ('Mean alpha during W', 'MMSE') | Charlson CI 2-4 | 0.19 | 0.20 | 0.25 | 0.07 | 57 | 66.8 (10.7) | 0.49 |
| ('Mean alpha during W', 'MMSE') | Charlson CI > 5 | -0.08 | 0.70 | -0.10 | 0.70 | 21 | 68.5 (10.7) | 0.62 |
| ('Mean alpha during W', 'MMSE') | None of above | -0.38 | 0.20 | -0.34 | 0.20 | 15 | 59.2 (12.5) | 0.4 |
| ('Mean alpha during W', 'MMSE') | None of above AND CCI<2 | -0.37 | 0.20 | -0.34 | 0.30 | 12 | 60.5 (13.7) | 0.33 |
| ('Mean alpha during W', 'MMSE') |  |  |  |  |  |  |  |  |
| ('Total ventricle volume', 'MMSE') | Dementia | -0.04 | 0.90 | 0.01 | 1.00 | 23 | 71.8 (12.2) | 0.57 |
| ('Total ventricle volume', 'MMSE') | MCI | -0.20 | 0.10 | -0.16 | 0.30 | 55 | 68.0 (10.1) | 0.49 |
| ('Total ventricle volume', 'MMSE') | Depression | 0.00 | 1.00 | 0.00 | 1.00 | 54 | 61.7 (10.6) | 0.46 |
| ('Total ventricle volume', 'MMSE') | Cancer | 0.19 | 0.40 | 0.25 | 0.30 | 22 | 67.0 (9.3) | 0.32 |
| ('Total ventricle volume', 'MMSE') | Diabetes | 0.29 | 0.30 | 0.42 | 0.20 | 14 | 63.0 (8.1) | 0.21 |
| ('Total ventricle volume', 'MMSE') | CHF | -0.08 | 0.80 | 0.04 | 0.90 | 11 | 69.1 (10.6) | 0.36 |
| ('Total ventricle volume', 'MMSE') | Periph. Vasc. D. | -0.50 | 0.08 | -0.31 | 0.30 | 13 | 67.1 (9.2) | 0.15 |
| ('Total ventricle volume', 'MMSE') | Cereb. Vasc. D. | 0.13 | 0.50 | 0.33 | 0.10 | 23 | 67.2 (10.6) | 0.39 |
| ('Total ventricle volume', 'MMSE') | Charlson CI < 2 | -0.24 | 0.06 | -0.13 | 0.30 | 61 | 62.3 (11.9) | 0.41 |
| ('Total ventricle volume', 'MMSE') | Charlson CI 2-4 | -0.13 | 0.30 | -0.03 | 0.80 | 57 | 66.8 (10.7) | 0.49 |
| ('Total ventricle volume', 'MMSE') | Charlson CI > 5 | -0.41 | 0.07 | -0.30 | 0.20 | 21 | 68.5 (10.7) | 0.62 |
| ('Total ventricle volume', 'MMSE') | None of above | -0.34 | 0.20 | -0.42 | 0.20 | 15 | 59.2 (12.5) | 0.4 |
| ('Total ventricle volume', 'MMSE') | None of above AND CCI<2 | -0.41 | 0.20 | -0.45 | 0.20 | 12 | 60.5 (13.7) | 0.33 |



**Figure S2**: Fitting linear models of the form b0 + b1 \* Age and 95% confidence intervals for subjects diagnosed with mild cognitive impairment (MCI, N=71), dementia (N=36), and controls (no MCI or dementia diagnosis, Charlson Comorbidity Index less than two, N=152).

Feature Grouping

Before clustering, closely correlated features (r>0.95) were pruned based on a hierarchy: 1) Mean spectral power, 2) Standard deviation of spectral power, 3) Maximum spectral power, and 4) Minimum spectral power. Higher-ranked features were prioritized for removal. For pairs outside these categories, selection was random.



**Figure S3 Feature Grouping for W and N1 sleep features**. Features were further clustered into subgroups or "clusters" based on their correlation matrices. The Ward's algorithm was employed for clustering, and a distance threshold of 12 was manually selected to guide the clustering process, resulting in nine clusters for W and N1.

W and N1 clusters:

Silhouette Score: 0.29

Davies-Bouldin Index: 1.25

Calinski-Harabasz Index: 65.19

cluster 1, termed “β, γ”

Number of features contained: 18

Features contained: ['gamma\_bandpower\_mean\_f\_w', 'beta\_bandpower\_std\_f\_w', 'beta\_bandpower\_std\_c\_w', 'beta\_bandpower\_std\_o\_w', 'gamma\_bandpower\_std\_f\_w', 'gamma\_bandpower\_std\_c\_w', 'gamma\_bandpower\_std\_o\_w', 'beta\_bandpower\_max\_f\_w', 'beta\_bandpower\_max\_c\_w', 'beta\_bandpower\_max\_o\_w', 'gamma\_bandpower\_max\_f\_w', 'gamma\_bandpower\_max\_c\_w', 'beta\_bandpower\_std\_f\_n1', 'beta\_bandpower\_std\_c\_n1', 'beta\_bandpower\_std\_o\_n1', 'gamma\_bandpower\_std\_f\_n1', 'gamma\_bandpower\_std\_c\_n1', 'gamma\_bandpower\_std\_o\_n1']

cluster 2, termed “σ”

Number of features contained: 31

Features contained: ['mean\_gradient\_f3-m2\_w', 'mean\_gradient\_f4-m1\_w', 'mean\_gradient\_c3-m2\_w', 'mean\_gradient\_o1-m2\_w', 'sigma\_bandpower\_mean\_f\_w', 'sigma\_bandpower\_mean\_c\_w', 'sigma\_bandpower\_mean\_o\_w', 'beta\_bandpower\_mean\_f\_w', 'beta\_bandpower\_mean\_c\_w', 'sigma\_bandpower\_std\_f\_w', 'sigma\_bandpower\_std\_c\_w', 'sigma\_bandpower\_std\_o\_w', 'sigma\_bandpower\_max\_f\_w', 'sigma\_bandpower\_max\_c\_w', 'sigma\_bandpower\_max\_o\_w', 'sigma\_bandpower\_min\_f\_w', 'mean\_gradient\_f3-m2\_n1', 'mean\_gradient\_f4-m1\_n1', 'mean\_gradient\_c3-m2\_n1', 'mean\_gradient\_o1-m2\_n1', 'sigma\_bandpower\_mean\_f\_n1', 'sigma\_bandpower\_mean\_c\_n1', 'sigma\_bandpower\_mean\_o\_n1', 'beta\_bandpower\_mean\_f\_n1', 'sigma\_bandpower\_std\_f\_n1', 'sigma\_bandpower\_std\_c\_n1', 'sigma\_bandpower\_std\_o\_n1', 'sigma\_bandpower\_max\_f\_n1', 'sigma\_bandpower\_max\_c\_n1', 'sigma\_bandpower\_max\_o\_n1', 'sigma\_bandpower\_min\_f\_n1']

cluster 3, termed “δ/fast”

Number of features contained: 20

Features contained: ['slowdelta/fast\_min\_f\_w', 'slowdelta/fast\_min\_c\_w', 'slowdelta/fast\_min\_o\_w', 'delta/alpha\_mean\_f\_n1', 'delta/alpha\_mean\_c\_n1', 'delta/alpha\_mean\_o\_n1', 'slowdelta/fast\_mean\_f\_n1', 'slowdelta/fast\_mean\_c\_n1', 'slowdelta/fast\_mean\_o\_n1', 'delta/alpha\_std\_f\_n1', 'delta/alpha\_std\_c\_n1', 'delta/alpha\_std\_o\_n1', 'slowdelta/fast\_std\_f\_n1', 'slowdelta/fast\_std\_c\_n1', 'slowdelta/fast\_std\_o\_n1', 'delta/alpha\_min\_f\_n1', 'delta/alpha\_min\_o\_n1', 'slowdelta/fast\_min\_f\_n1', 'slowdelta/fast\_min\_c\_n1', 'slowdelta/fast\_min\_o\_n1']

cluster 4, termed “δ/θ”

Number of features contained: 42

Features contained: ['delta/theta\_mean\_f\_w', 'delta/theta\_mean\_c\_w', 'delta/theta\_mean\_o\_w', 'delta/alpha\_mean\_f\_w', 'delta/alpha\_mean\_c\_w', 'delta/alpha\_mean\_o\_w', 'slowdelta/thetaalpha\_mean\_c\_w', 'slowdelta/thetaalpha\_mean\_o\_w', 'slowdelta/fast\_mean\_f\_w', 'slowdelta/fast\_mean\_c\_w', 'slowdelta/fast\_mean\_o\_w', 'delta/theta\_std\_f\_w', 'delta/theta\_std\_c\_w', 'delta/theta\_std\_o\_w', 'delta/alpha\_std\_f\_w', 'delta/alpha\_std\_c\_w', 'delta/alpha\_std\_o\_w', 'slowdelta/fast\_std\_f\_w', 'slowdelta/fast\_std\_c\_w', 'slowdelta/fast\_std\_o\_w', 'delta/theta\_min\_f\_w', 'delta/theta\_min\_c\_w', 'delta/theta\_min\_o\_w', 'delta/alpha\_min\_f\_w', 'delta/alpha\_min\_c\_w', 'delta/alpha\_min\_o\_w', 'slowdelta/thetaalpha\_min\_f\_w', 'slowdelta/thetaalpha\_min\_c\_w', 'slowdelta/thetaalpha\_min\_o\_w', 'delta/theta\_mean\_f\_n1', 'delta/theta\_mean\_c\_n1', 'delta/theta\_mean\_o\_n1', 'slowdelta/thetaalpha\_mean\_c\_n1', 'slowdelta/thetaalpha\_mean\_o\_n1', 'delta/theta\_std\_f\_n1', 'delta/theta\_std\_c\_n1', 'delta/theta\_std\_o\_n1', 'delta/theta\_min\_f\_n1', 'delta/theta\_min\_o\_n1', 'slowdelta/thetaalpha\_min\_f\_n1', 'slowdelta/thetaalpha\_min\_c\_n1', 'slowdelta/thetaalpha\_min\_o\_n1']

cluster 5, termed “θ, α”

Number of features contained: 18

Features contained: ['theta\_bandpower\_mean\_f\_w', 'theta\_bandpower\_mean\_o\_w', 'alpha\_bandpower\_mean\_f\_w', 'theta\_bandpower\_std\_f\_w', 'theta\_bandpower\_std\_c\_w', 'theta\_bandpower\_std\_o\_w', 'alpha\_bandpower\_std\_f\_w', 'alpha\_bandpower\_std\_o\_w', 'theta\_bandpower\_min\_f\_w', 'theta\_bandpower\_min\_c\_w', 'theta\_bandpower\_mean\_f\_n1', 'theta\_bandpower\_mean\_o\_n1', 'theta\_bandpower\_std\_f\_n1', 'theta\_bandpower\_std\_o\_n1', 'alpha\_bandpower\_std\_f\_n1', 'alpha\_bandpower\_std\_o\_n1', 'theta\_bandpower\_min\_f\_n1', 'theta\_bandpower\_min\_o\_n1']

cluster 6, termed “SO, δ”

Number of features contained: 22

Features contained: ['slow\_bandpower\_min\_f\_w', 'slow\_bandpower\_min\_c\_w', 'slow\_bandpower\_min\_o\_w', 'delta\_bandpower\_min\_f\_w', 'delta\_bandpower\_min\_c\_w', 'delta\_bandpower\_min\_o\_w', 'slow\_bandpower\_mean\_f\_n1', 'slow\_bandpower\_mean\_c\_n1', 'slow\_bandpower\_mean\_o\_n1', 'delta\_bandpower\_mean\_f\_n1', 'delta\_bandpower\_mean\_c\_n1', 'delta\_bandpower\_mean\_o\_n1', 'slow\_bandpower\_std\_f\_n1', 'slow\_bandpower\_std\_c\_n1', 'slow\_bandpower\_std\_o\_n1', 'delta\_bandpower\_std\_f\_n1', 'delta\_bandpower\_std\_c\_n1', 'slow\_bandpower\_min\_f\_n1', 'slow\_bandpower\_min\_c\_n1', 'slow\_bandpower\_min\_o\_n1', 'delta\_bandpower\_min\_f\_n1', 'delta\_bandpower\_min\_o\_n1']

cluster 7, termed “θ/α”

Number of features contained: 28

Features contained: ['theta/alpha\_mean\_f\_w', 'theta/alpha\_mean\_o\_w', 'theta/alpha\_std\_f\_w', 'theta/alpha\_std\_c\_w', 'theta/alpha\_std\_o\_w', 'theta\_bandpower\_kurtosis\_f\_w', 'theta\_bandpower\_kurtosis\_c\_w', 'theta\_bandpower\_kurtosis\_o\_w', 'alpha\_bandpower\_kurtosis\_f\_w', 'alpha\_bandpower\_kurtosis\_c\_w', 'alpha\_bandpower\_kurtosis\_o\_w', 'theta/alpha\_mean\_f\_n1', 'theta/alpha\_mean\_o\_n1', 'theta/alpha\_std\_o\_n1', 'theta/alpha\_min\_o\_n1', 'perc\_n1', 'theta\_bandpower\_kurtosis\_f\_n1', 'theta\_bandpower\_kurtosis\_c\_n1', 'theta\_bandpower\_kurtosis\_o\_n1', 'alpha\_bandpower\_kurtosis\_f\_n1', 'alpha\_bandpower\_kurtosis\_c\_n1', 'alpha\_bandpower\_kurtosis\_o\_n1', 'sigma\_bandpower\_kurtosis\_f\_n1', 'sigma\_bandpower\_kurtosis\_c\_n1', 'sigma\_bandpower\_kurtosis\_o\_n1', 'beta\_bandpower\_kurtosis\_f\_n1', 'beta\_bandpower\_kurtosis\_c\_n1', 'beta\_bandpower\_kurtosis\_o\_n1']

cluster 8, termed “STD”

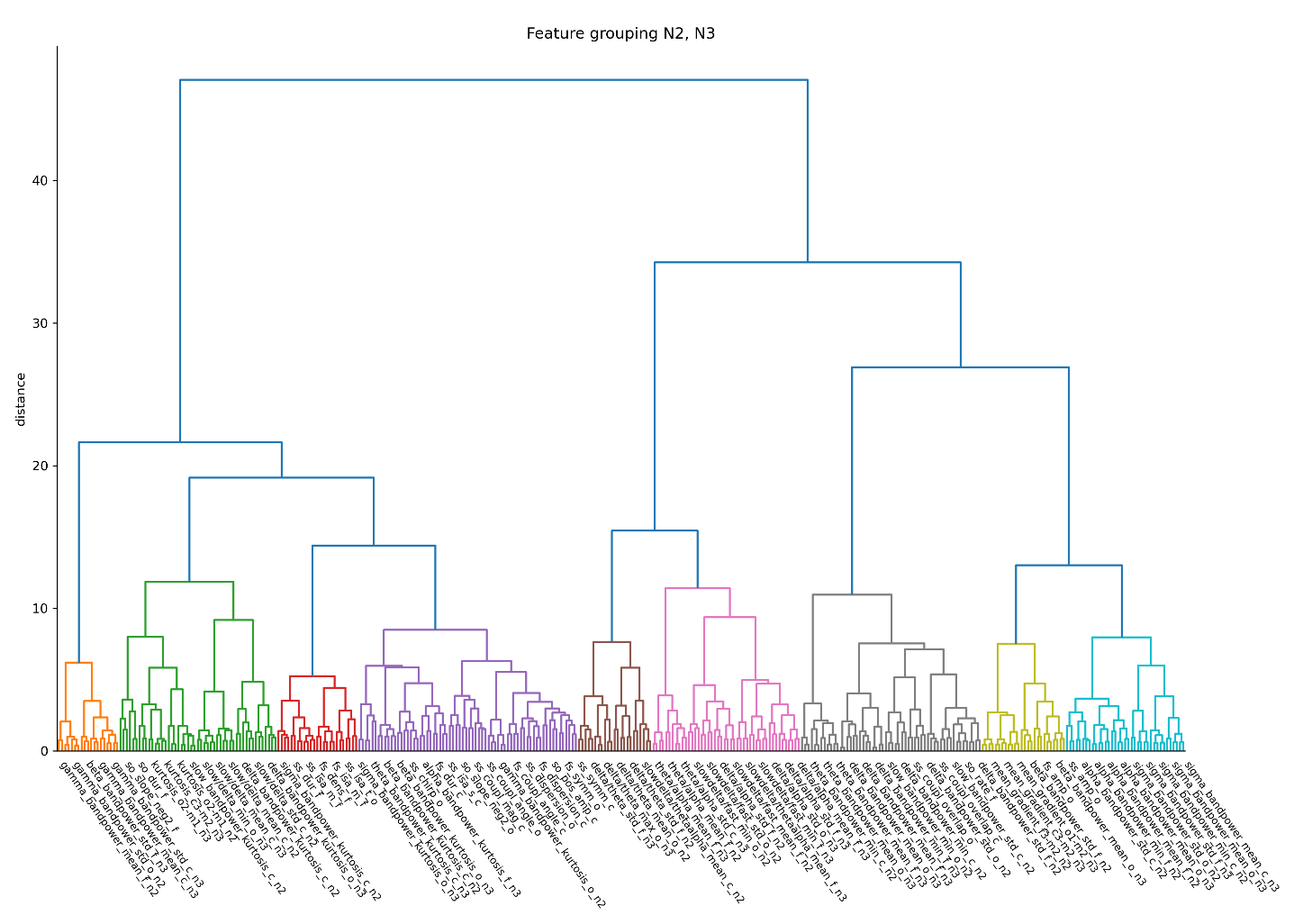
Number of features contained: 29

Features contained: ['kurtosis\_f3-m2\_w', 'kurtosis\_f4-m1\_w', 'kurtosis\_c3-m2\_w', 'kurtosis\_c4-m1\_w', 'kurtosis\_o1-m2\_w', 'kurtosis\_o2-m1\_w', 'slow\_bandpower\_kurtosis\_f\_w', 'slow\_bandpower\_kurtosis\_c\_w', 'sigma\_bandpower\_kurtosis\_f\_w', 'sigma\_bandpower\_kurtosis\_c\_w', 'sigma\_bandpower\_kurtosis\_o\_w', 'beta\_bandpower\_kurtosis\_f\_w', 'beta\_bandpower\_kurtosis\_c\_w', 'beta\_bandpower\_kurtosis\_o\_w', 'gamma\_bandpower\_kurtosis\_f\_w', 'gamma\_bandpower\_kurtosis\_c\_w', 'gamma\_bandpower\_kurtosis\_o\_w', 'slow\_bandpower\_kurtosis\_f\_n1', 'slow\_bandpower\_kurtosis\_c\_n1', 'slow\_bandpower\_kurtosis\_o\_n1', 'gamma\_bandpower\_kurtosis\_f\_n1', 'gamma\_bandpower\_kurtosis\_c\_n1', 'gamma\_bandpower\_kurtosis\_o\_n1', 'kurtosis\_f3-m2\_n1', 'kurtosis\_f4-m1\_n1', 'kurtosis\_c3-m2\_n1', 'kurtosis\_c4-m1\_n1', 'kurtosis\_o1-m2\_n1', 'kurtosis\_o2-m1\_n1']

cluster 9, termed “SO/δ”

Number of features contained: 38

Features contained: ['slow\_bandpower\_mean\_f\_w', 'slow\_bandpower\_mean\_c\_w', 'slow\_bandpower\_mean\_o\_w', 'delta\_bandpower\_mean\_f\_w', 'delta\_bandpower\_mean\_c\_w', 'delta\_bandpower\_mean\_o\_w', 'slowdelta\_bandpower\_mean\_c\_w', 'slow/delta\_mean\_f\_w', 'slow/delta\_mean\_c\_w', 'slow/delta\_mean\_o\_w', 'slow\_bandpower\_std\_f\_w', 'slow\_bandpower\_std\_c\_w', 'slow\_bandpower\_std\_o\_w', 'delta\_bandpower\_std\_f\_w', 'delta\_bandpower\_std\_c\_w', 'delta\_bandpower\_std\_o\_w', 'slow/delta\_std\_f\_w', 'slow/delta\_std\_c\_w', 'slow/delta\_std\_o\_w', 'slow/delta\_min\_f\_w', 'slow/delta\_min\_c\_w', 'slow/delta\_min\_o\_w', 'slow\_bandpower\_kurtosis\_o\_w', 'delta\_bandpower\_kurtosis\_f\_w', 'delta\_bandpower\_kurtosis\_c\_w', 'delta\_bandpower\_kurtosis\_o\_w', 'slow/delta\_mean\_f\_n1', 'slow/delta\_mean\_c\_n1', 'slow/delta\_mean\_o\_n1', 'slow/delta\_std\_f\_n1', 'slow/delta\_std\_c\_n1', 'slow/delta\_std\_o\_n1', 'slow/delta\_min\_f\_n1', 'slow/delta\_min\_c\_n1', 'slow/delta\_min\_o\_n1', 'delta\_bandpower\_kurtosis\_f\_n1', 'delta\_bandpower\_kurtosis\_c\_n1', 'delta\_bandpower\_kurtosis\_o\_n1']



**Figure S4 Feature Grouping for N2 and N3 sleep features**. Features were further clustered into subgroups or "clusters" based on their correlation matrices. The Ward's algorithm was employed for clustering, and a distance threshold of 12 was manually selected to guide the clustering process, resulting in nine clusters for N2 and N3.

N2 and N3 clusters:

Silhouette Score: 0.26

Davies-Bouldin Index: 1.39

Calinski-Harabasz Index: 96.30

cluster 1, termed “β, γ”

Number of features contained: 19

Features contained: ['gamma\_bandpower\_mean\_f\_n2', 'gamma\_bandpower\_mean\_o\_n2', 'gamma\_bandpower\_std\_f\_n2', 'gamma\_bandpower\_std\_c\_n2', 'gamma\_bandpower\_std\_o\_n2', 'gamma\_bandpower\_max\_f\_n2', 'gamma\_bandpower\_max\_c\_n2', 'gamma\_bandpower\_mean\_f\_n3', 'gamma\_bandpower\_mean\_c\_n3', 'gamma\_bandpower\_mean\_o\_n3', 'beta\_bandpower\_std\_f\_n3', 'beta\_bandpower\_std\_c\_n3', 'beta\_bandpower\_std\_o\_n3', 'gamma\_bandpower\_std\_f\_n3', 'gamma\_bandpower\_std\_c\_n3', 'gamma\_bandpower\_std\_o\_n3', 'gamma\_bandpower\_max\_f\_n3', 'gamma\_bandpower\_max\_c\_n3', 'gamma\_bandpower\_max\_o\_n3']

cluster 2, termed “SO, δ”

Number of features contained: 49

Features contained: ['so\_p2p\_f', 'so\_slope\_neg2\_f', 'so\_dur\_o', 'so\_slope\_neg2\_c', 'so\_dur\_c', 'so\_dur\_f', 'slow/delta\_mean\_f\_n2', 'slow/delta\_mean\_c\_n2', 'slow/delta\_mean\_o\_n2', 'slow/delta\_std\_f\_n2', 'slow/delta\_std\_c\_n2', 'slow/delta\_std\_o\_n2', 'slow/delta\_min\_f\_n2', 'slow/delta\_min\_c\_n2', 'slow/delta\_min\_o\_n2', 'kurtosis\_c3-m2\_n2', 'kurtosis\_c4-m1\_n2', 'kurtosis\_o1-m2\_n2', 'kurtosis\_o2-m1\_n2', 'kurtosis\_f3-m2\_n2', 'kurtosis\_f4-m1\_n2', 'slow\_bandpower\_kurtosis\_f\_n2', 'slow\_bandpower\_kurtosis\_c\_n2', 'slow\_bandpower\_kurtosis\_o\_n2', 'delta\_bandpower\_kurtosis\_f\_n2', 'delta\_bandpower\_kurtosis\_c\_n2', 'delta\_bandpower\_kurtosis\_o\_n2', 'slow/delta\_mean\_f\_n3', 'slow/delta\_mean\_c\_n3', 'slow/delta\_mean\_o\_n3', 'slow/delta\_std\_f\_n3', 'slow/delta\_std\_c\_n3', 'slow/delta\_std\_o\_n3', 'slow/delta\_min\_f\_n3', 'slow/delta\_min\_c\_n3', 'slow/delta\_min\_o\_n3', 'kurtosis\_o2-m1\_n3', 'kurtosis\_c3-m2\_n3', 'kurtosis\_c4-m1\_n3', 'kurtosis\_o1-m2\_n3', 'kurtosis\_f3-m2\_n3', 'kurtosis\_f4-m1\_n3', 'slow\_bandpower\_kurtosis\_f\_n3', 'slow\_bandpower\_kurtosis\_c\_n3', 'slow\_bandpower\_kurtosis\_o\_n3', 'delta\_bandpower\_kurtosis\_f\_n3', 'delta\_bandpower\_kurtosis\_c\_n3', 'delta\_bandpower\_kurtosis\_o\_n3', 'slowdelta\_bandpower\_kurtosis\_c\_n3']

cluster 3, termed “SP, σ”

Number of features contained: 25

Features contained: ['sigma\_bandpower\_kurtosis\_f\_n2', 'sigma\_bandpower\_kurtosis\_c\_n2', 'sigma\_bandpower\_kurtosis\_o\_n2', 'fs\_dens\_f', 'fs\_dens\_c', 'fs\_dens\_o', 'fs\_isa\_m\_f', 'fs\_isa\_m\_c', 'fs\_isa\_t\_f', 'fs\_isa\_t\_o', 'fs\_isa\_t\_c', 'ss\_dens\_f', 'ss\_dens\_c', 'ss\_dens\_o', 'ss\_isa\_m\_f', 'ss\_isa\_m\_c', 'ss\_isa\_m\_o', 'ss\_isa\_t\_f', 'ss\_isa\_t\_c', 'ss\_isa\_t\_o', 'ss\_dur\_f', 'ss\_dur\_c', 'sigma\_bandpower\_kurtosis\_f\_n3', 'sigma\_bandpower\_kurtosis\_c\_n3', 'sigma\_bandpower\_kurtosis\_o\_n3']

cluster 4, termed “SO, SP”

Number of features contained: 68

Features contained: ['delta\_linear\_b1', 'so\_p2p\_o', 'so\_pos\_amp\_c', 'so\_slope\_neg2\_o', 'perc\_n2', 'theta\_bandpower\_kurtosis\_f\_n2', 'theta\_bandpower\_kurtosis\_c\_n2', 'theta\_bandpower\_kurtosis\_o\_n2', 'alpha\_bandpower\_kurtosis\_f\_n2', 'alpha\_bandpower\_kurtosis\_c\_n2', 'alpha\_bandpower\_kurtosis\_o\_n2', 'beta\_bandpower\_kurtosis\_f\_n2', 'beta\_bandpower\_kurtosis\_c\_n2', 'beta\_bandpower\_kurtosis\_o\_n2', 'gamma\_bandpower\_kurtosis\_f\_n2', 'gamma\_bandpower\_kurtosis\_c\_n2', 'gamma\_bandpower\_kurtosis\_o\_n2', 'fs\_chirp\_c', 'fs\_chirp\_o', 'fs\_isa\_s\_f', 'fs\_isa\_s\_o', 'fs\_chirp\_f', 'fs\_symm\_o', 'fs\_dur\_c', 'fs\_dispersion\_f', 'fs\_dispersion\_c', 'fs\_coupl\_angle\_f', 'fs\_coupl\_angle\_o', 'fs\_coupl\_mag\_f', 'fs\_coupl\_angle\_c', 'fs\_dur\_f', 'fs\_dispersion\_o', 'fs\_coupl\_mag\_c', 'fs\_coupl\_mag\_o', 'fs\_dur\_o', 'fs\_symm\_f', 'fs\_symm\_c', 'ss\_chirp\_f', 'ss\_chirp\_c', 'ss\_chirp\_o', 'ss\_isa\_s\_f', 'ss\_isa\_s\_c', 'ss\_symm\_f', 'ss\_symm\_c', 'ss\_symm\_o', 'ss\_dur\_o', 'ss\_dispersion\_f', 'ss\_dispersion\_c', 'ss\_dispersion\_o', 'ss\_coupl\_angle\_f', 'ss\_coupl\_angle\_c', 'ss\_coupl\_angle\_o', 'ss\_coupl\_mag\_f', 'ss\_coupl\_mag\_c', 'ss\_coupl\_mag\_o', 'perc\_n3', 'theta\_bandpower\_kurtosis\_f\_n3', 'theta\_bandpower\_kurtosis\_c\_n3', 'theta\_bandpower\_kurtosis\_o\_n3', 'alpha\_bandpower\_kurtosis\_f\_n3', 'alpha\_bandpower\_kurtosis\_c\_n3', 'alpha\_bandpower\_kurtosis\_o\_n3', 'beta\_bandpower\_kurtosis\_f\_n3', 'beta\_bandpower\_kurtosis\_c\_n3', 'beta\_bandpower\_kurtosis\_o\_n3', 'gamma\_bandpower\_kurtosis\_f\_n3', 'gamma\_bandpower\_kurtosis\_c\_n3', 'gamma\_bandpower\_kurtosis\_o\_n3']

cluster 5, termed “δ/θ”

Number of features contained: 23

Features contained: ['delta/theta\_mean\_f\_n2', 'delta/theta\_mean\_c\_n2', 'delta/theta\_mean\_o\_n2', 'slowdelta/thetaalpha\_mean\_c\_n2', 'delta/theta\_std\_f\_n2', 'delta/theta\_std\_c\_n2', 'delta/theta\_std\_o\_n2', 'delta/theta\_min\_f\_n2', 'delta/theta\_min\_o\_n2', 'slowdelta/thetaalpha\_min\_f\_n2', 'slowdelta/thetaalpha\_min\_c\_n2', 'slowdelta/thetaalpha\_min\_o\_n2', 'delta/theta\_mean\_f\_n3', 'delta/theta\_mean\_c\_n3', 'delta/theta\_mean\_o\_n3', 'delta/theta\_std\_f\_n3', 'delta/theta\_std\_c\_n3', 'delta/theta\_std\_o\_n3', 'slowdelta/thetaalpha\_std\_f\_n3', 'delta/theta\_max\_o\_n3', 'delta/theta\_min\_f\_n3', 'delta/theta\_min\_c\_n3', 'delta/theta\_min\_o\_n3']

cluster 6, termed “δ/αfast”

Number of features contained: 46

Features contained: ['delta/alpha\_mean\_f\_n2', 'delta/alpha\_mean\_c\_n2', 'delta/alpha\_mean\_o\_n2', 'slowdelta/fast\_mean\_f\_n2', 'slowdelta/fast\_mean\_c\_n2', 'slowdelta/fast\_mean\_o\_n2', 'theta/alpha\_mean\_f\_n2', 'theta/alpha\_mean\_o\_n2', 'delta/alpha\_std\_f\_n2', 'delta/alpha\_std\_c\_n2', 'delta/alpha\_std\_o\_n2', 'slowdelta/fast\_std\_c\_n2', 'slowdelta/fast\_std\_o\_n2', 'delta/alpha\_min\_f\_n2', 'delta/alpha\_min\_o\_n2', 'slowdelta/fast\_min\_f\_n2', 'slowdelta/fast\_min\_o\_n2', 'delta/alpha\_mean\_f\_n3', 'delta/alpha\_mean\_c\_n3', 'delta/alpha\_mean\_o\_n3', 'slowdelta/thetaalpha\_mean\_f\_n3', 'slowdelta/thetaalpha\_mean\_c\_n3', 'slowdelta/fast\_mean\_f\_n3', 'slowdelta/fast\_mean\_c\_n3', 'slowdelta/fast\_mean\_o\_n3', 'theta/alpha\_mean\_f\_n3', 'theta/alpha\_mean\_c\_n3', 'theta/alpha\_mean\_o\_n3', 'delta/alpha\_std\_f\_n3', 'delta/alpha\_std\_c\_n3', 'delta/alpha\_std\_o\_n3', 'slowdelta/fast\_std\_f\_n3', 'theta/alpha\_std\_f\_n3', 'theta/alpha\_std\_c\_n3', 'theta/alpha\_std\_o\_n3', 'delta/alpha\_min\_f\_n3', 'delta/alpha\_min\_c\_n3', 'delta/alpha\_min\_o\_n3', 'slowdelta/thetaalpha\_min\_f\_n3', 'slowdelta/thetaalpha\_min\_c\_n3', 'slowdelta/fast\_min\_f\_n3', 'slowdelta/fast\_min\_c\_n3', 'slowdelta/fast\_min\_o\_n3', 'theta/alpha\_min\_f\_n3', 'theta/alpha\_min\_c\_n3', 'theta/alpha\_min\_o\_n3']

cluster 7, termed “SO, δ, θ”

Number of features contained: 56

Features contained: ['delta\_linear\_b0', 'slowdelta\_bandpower\_until\_rem', 'slowdelta\_bandpower\_total', 'so\_rate\_f', 'so\_rate\_c', 'so\_rate\_o', 'slow\_bandpower\_mean\_f\_n2', 'slow\_bandpower\_mean\_c\_n2', 'slow\_bandpower\_mean\_o\_n2', 'delta\_bandpower\_mean\_f\_n2', 'delta\_bandpower\_mean\_c\_n2', 'delta\_bandpower\_mean\_o\_n2', 'theta\_bandpower\_mean\_f\_n2', 'theta\_bandpower\_mean\_o\_n2', 'slow\_bandpower\_std\_f\_n2', 'slow\_bandpower\_std\_c\_n2', 'slow\_bandpower\_std\_o\_n2', 'delta\_bandpower\_std\_f\_n2', 'delta\_bandpower\_std\_c\_n2', 'delta\_bandpower\_std\_o\_n2', 'theta\_bandpower\_std\_f\_n2', 'theta\_bandpower\_std\_c\_n2', 'slow\_bandpower\_min\_f\_n2', 'slow\_bandpower\_min\_c\_n2', 'slow\_bandpower\_min\_o\_n2', 'delta\_bandpower\_min\_f\_n2', 'delta\_bandpower\_min\_c\_n2', 'delta\_bandpower\_min\_o\_n2', 'theta\_bandpower\_min\_f\_n2', 'theta\_bandpower\_min\_c\_n2', 'fs\_coupl\_overlap\_f', 'fs\_coupl\_overlap\_c', 'fs\_coupl\_overlap\_o', 'ss\_coupl\_overlap\_f', 'ss\_coupl\_overlap\_c', 'ss\_coupl\_overlap\_o', 'slow\_bandpower\_mean\_f\_n3', 'slow\_bandpower\_mean\_c\_n3', 'slow\_bandpower\_mean\_o\_n3', 'delta\_bandpower\_mean\_f\_n3', 'delta\_bandpower\_mean\_o\_n3', 'theta\_bandpower\_mean\_f\_n3', 'theta\_bandpower\_mean\_o\_n3', 'slow\_bandpower\_std\_f\_n3', 'delta\_bandpower\_std\_o\_n3', 'theta\_bandpower\_std\_f\_n3', 'theta\_bandpower\_std\_c\_n3', 'theta\_bandpower\_std\_o\_n3', 'slow\_bandpower\_min\_f\_n3', 'slow\_bandpower\_min\_c\_n3', 'slow\_bandpower\_min\_o\_n3', 'delta\_bandpower\_min\_f\_n3', 'delta\_bandpower\_min\_o\_n3', 'slowdelta\_bandpower\_min\_f\_n3', 'slowdelta\_bandpower\_min\_o\_n3', 'theta\_bandpower\_min\_f\_n3']

cluster 8, termed “β”

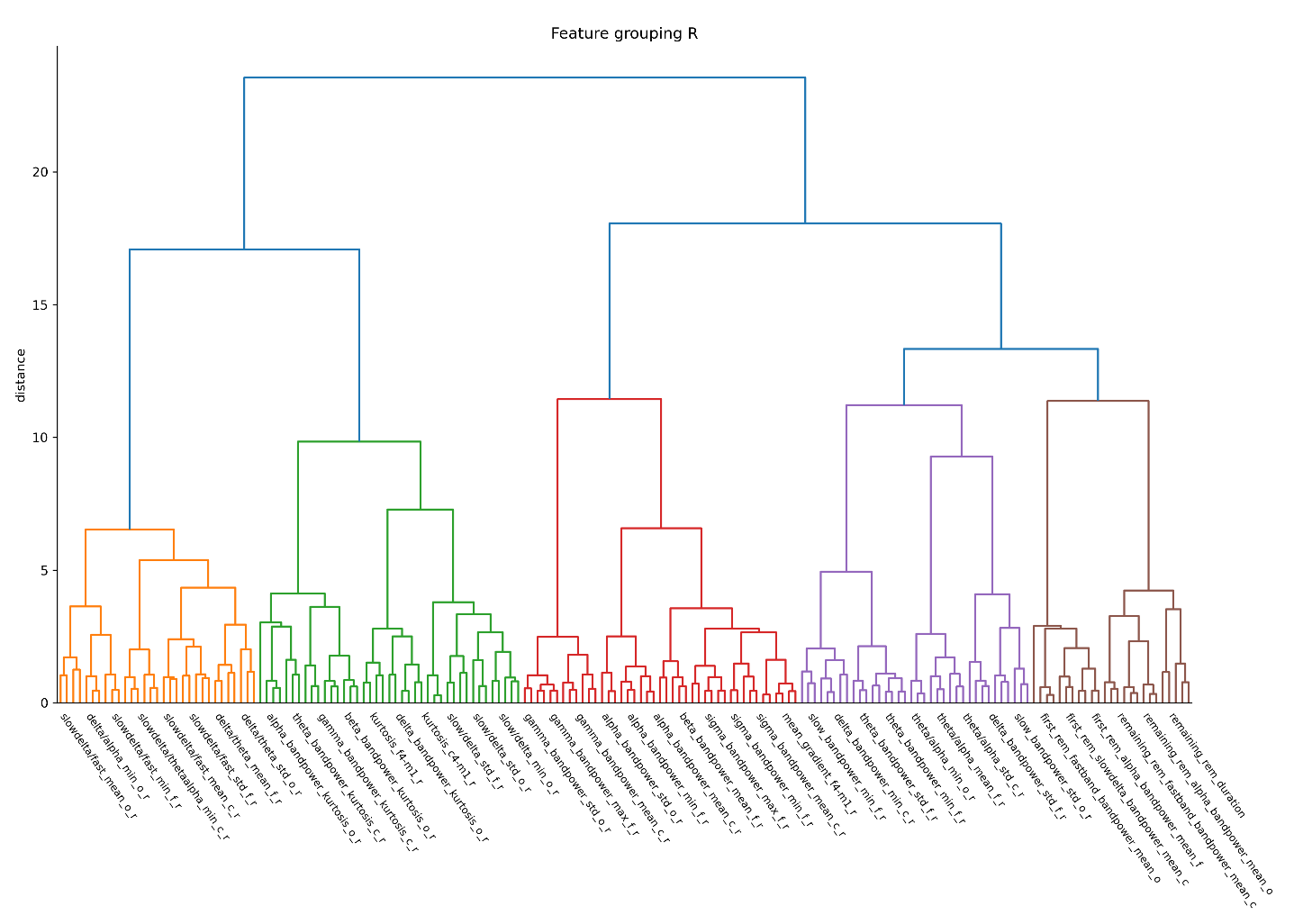
Number of features contained: 26

Features contained: ['mean\_gradient\_f3-m2\_n2', 'mean\_gradient\_f4-m1\_n2', 'mean\_gradient\_c3-m2\_n2', 'mean\_gradient\_c4-m1\_n2', 'mean\_gradient\_o1-m2\_n2', 'mean\_gradient\_o2-m1\_n2', 'beta\_bandpower\_mean\_f\_n2', 'beta\_bandpower\_mean\_c\_n2', 'beta\_bandpower\_mean\_o\_n2', 'beta\_bandpower\_std\_f\_n2', 'beta\_bandpower\_std\_c\_n2', 'beta\_bandpower\_std\_o\_n2', 'beta\_bandpower\_max\_f\_n2', 'fs\_amp\_f', 'fs\_amp\_c', 'fs\_amp\_o', 'mean\_gradient\_f3-m2\_n3', 'mean\_gradient\_f4-m1\_n3', 'mean\_gradient\_c3-m2\_n3', 'mean\_gradient\_c4-m1\_n3', 'mean\_gradient\_o1-m2\_n3', 'mean\_gradient\_o2-m1\_n3', 'beta\_bandpower\_mean\_f\_n3', 'beta\_bandpower\_mean\_o\_n3', 'beta\_bandpower\_max\_f\_n3', 'beta\_bandpower\_max\_o\_n3']

cluster 9, termed “α, σ, SP”

Number of features contained: 37

Features contained: ['alpha\_bandpower\_mean\_f\_n2', 'alpha\_bandpower\_mean\_c\_n2', 'alpha\_bandpower\_mean\_o\_n2', 'sigma\_bandpower\_mean\_f\_n2', 'sigma\_bandpower\_mean\_c\_n2', 'sigma\_bandpower\_mean\_o\_n2', 'alpha\_bandpower\_std\_f\_n2', 'alpha\_bandpower\_std\_c\_n2', 'alpha\_bandpower\_std\_o\_n2', 'sigma\_bandpower\_std\_f\_n2', 'sigma\_bandpower\_std\_c\_n2', 'sigma\_bandpower\_std\_o\_n2', 'alpha\_bandpower\_min\_f\_n2', 'alpha\_bandpower\_min\_c\_n2', 'alpha\_bandpower\_min\_o\_n2', 'sigma\_bandpower\_min\_f\_n2', 'sigma\_bandpower\_min\_c\_n2', 'ss\_amp\_f', 'ss\_amp\_c', 'ss\_amp\_o', 'alpha\_bandpower\_mean\_f\_n3', 'alpha\_bandpower\_mean\_c\_n3', 'alpha\_bandpower\_mean\_o\_n3', 'sigma\_bandpower\_mean\_f\_n3', 'sigma\_bandpower\_mean\_c\_n3', 'sigma\_bandpower\_mean\_o\_n3', 'alpha\_bandpower\_std\_c\_n3', 'alpha\_bandpower\_std\_o\_n3', 'sigma\_bandpower\_std\_f\_n3', 'sigma\_bandpower\_std\_c\_n3', 'sigma\_bandpower\_std\_o\_n3', 'alpha\_bandpower\_min\_f\_n3', 'alpha\_bandpower\_min\_c\_n3', 'alpha\_bandpower\_min\_o\_n3', 'sigma\_bandpower\_min\_f\_n3', 'sigma\_bandpower\_min\_c\_n3', 'sigma\_bandpower\_min\_o\_n3']



**Figure S5 Feature Grouping for R sleep features**. Features were further clustered into subgroups or "clusters" based on their correlation matrices. The Ward's algorithm was employed for clustering, and a distance threshold of 12 was manually selected to guide the clustering process, resulting in five clusters for REM.

REM clusters:

Silhouette Score: 0.29

Davies-Bouldin Index: 1.44

Calinski-Harabasz Index: 48.58

cluster 1, termed “δ/fast”

Number of features contained: 31

Features contained: ['delta/theta\_mean\_f\_r', 'delta/theta\_mean\_c\_r', 'delta/theta\_mean\_o\_r', 'delta/alpha\_mean\_f\_r', 'delta/alpha\_mean\_c\_r', 'delta/alpha\_mean\_o\_r', 'slowdelta/thetaalpha\_mean\_o\_r', 'slowdelta/fast\_mean\_f\_r', 'slowdelta/fast\_mean\_c\_r', 'slowdelta/fast\_mean\_o\_r', 'delta/theta\_std\_f\_r', 'delta/theta\_std\_c\_r', 'delta/theta\_std\_o\_r', 'delta/alpha\_std\_f\_r', 'delta/alpha\_std\_c\_r', 'delta/alpha\_std\_o\_r', 'slowdelta/fast\_std\_f\_r', 'slowdelta/fast\_std\_c\_r', 'slowdelta/fast\_std\_o\_r', 'delta/theta\_min\_f\_r', 'delta/theta\_min\_c\_r', 'delta/theta\_min\_o\_r', 'delta/alpha\_min\_f\_r', 'delta/alpha\_min\_c\_r', 'delta/alpha\_min\_o\_r', 'slowdelta/thetaalpha\_min\_f\_r', 'slowdelta/thetaalpha\_min\_c\_r', 'slowdelta/thetaalpha\_min\_o\_r', 'slowdelta/fast\_min\_f\_r', 'slowdelta/fast\_min\_c\_r', 'slowdelta/fast\_min\_o\_r']

cluster 2, termed “δ, STD”

Number of features contained: 41

Features contained: ['slow/delta\_mean\_f\_r', 'slow/delta\_mean\_c\_r', 'slow/delta\_mean\_o\_r', 'slow/delta\_std\_f\_r', 'slow/delta\_std\_c\_r', 'slow/delta\_std\_o\_r', 'slow/delta\_max\_o\_r', 'slow/delta\_min\_f\_r', 'slow/delta\_min\_c\_r', 'slow/delta\_min\_o\_r', 'rem\_density', 'first\_rem\_density', 'remaining\_rem\_density', 'slowdelta\_bandpower\_until\_rem', 'kurtosis\_f3-m2\_r', 'kurtosis\_f4-m1\_r', 'kurtosis\_c3-m2\_r', 'kurtosis\_c4-m1\_r', 'kurtosis\_o1-m2\_r', 'kurtosis\_o2-m1\_r', 'slow\_bandpower\_kurtosis\_f\_r', 'slow\_bandpower\_kurtosis\_c\_r', 'slow\_bandpower\_kurtosis\_o\_r', 'delta\_bandpower\_kurtosis\_f\_r', 'delta\_bandpower\_kurtosis\_c\_r', 'delta\_bandpower\_kurtosis\_o\_r', 'theta\_bandpower\_kurtosis\_f\_r', 'theta\_bandpower\_kurtosis\_c\_r', 'theta\_bandpower\_kurtosis\_o\_r', 'alpha\_bandpower\_kurtosis\_f\_r', 'alpha\_bandpower\_kurtosis\_c\_r', 'alpha\_bandpower\_kurtosis\_o\_r', 'sigma\_bandpower\_kurtosis\_f\_r', 'sigma\_bandpower\_kurtosis\_c\_r', 'sigma\_bandpower\_kurtosis\_o\_r', 'beta\_bandpower\_kurtosis\_f\_r', 'beta\_bandpower\_kurtosis\_c\_r', 'beta\_bandpower\_kurtosis\_o\_r', 'gamma\_bandpower\_kurtosis\_f\_r', 'gamma\_bandpower\_kurtosis\_c\_r', 'gamma\_bandpower\_kurtosis\_o\_r']

cluster 3, termed “α, σ, β”

Number of features contained: 43

Features contained: ['mean\_gradient\_f3-m2\_r', 'mean\_gradient\_f4-m1\_r', 'mean\_gradient\_c3-m2\_r', 'mean\_gradient\_c4-m1\_r', 'mean\_gradient\_o1-m2\_r', 'mean\_gradient\_o2-m1\_r', 'alpha\_bandpower\_mean\_f\_r', 'alpha\_bandpower\_mean\_c\_r', 'alpha\_bandpower\_mean\_o\_r', 'sigma\_bandpower\_mean\_f\_r', 'sigma\_bandpower\_mean\_c\_r', 'sigma\_bandpower\_mean\_o\_r', 'beta\_bandpower\_mean\_f\_r', 'beta\_bandpower\_mean\_c\_r', 'beta\_bandpower\_mean\_o\_r', 'gamma\_bandpower\_mean\_f\_r', 'gamma\_bandpower\_mean\_c\_r', 'gamma\_bandpower\_mean\_o\_r', 'alpha\_bandpower\_std\_f\_r', 'alpha\_bandpower\_std\_c\_r', 'alpha\_bandpower\_std\_o\_r', 'sigma\_bandpower\_std\_f\_r', 'sigma\_bandpower\_std\_c\_r', 'sigma\_bandpower\_std\_o\_r', 'beta\_bandpower\_std\_f\_r', 'beta\_bandpower\_std\_c\_r', 'beta\_bandpower\_std\_o\_r', 'gamma\_bandpower\_std\_f\_r', 'gamma\_bandpower\_std\_c\_r', 'gamma\_bandpower\_std\_o\_r', 'sigma\_bandpower\_max\_f\_r', 'sigma\_bandpower\_max\_c\_r', 'sigma\_bandpower\_max\_o\_r', 'beta\_bandpower\_max\_f\_r', 'beta\_bandpower\_max\_o\_r', 'gamma\_bandpower\_max\_f\_r', 'gamma\_bandpower\_max\_c\_r', 'gamma\_bandpower\_max\_o\_r', 'alpha\_bandpower\_min\_f\_r', 'alpha\_bandpower\_min\_c\_r', 'alpha\_bandpower\_min\_o\_r', 'sigma\_bandpower\_min\_f\_r', 'sigma\_bandpower\_min\_c\_r']

cluster 4, termed “δ, θ/α”

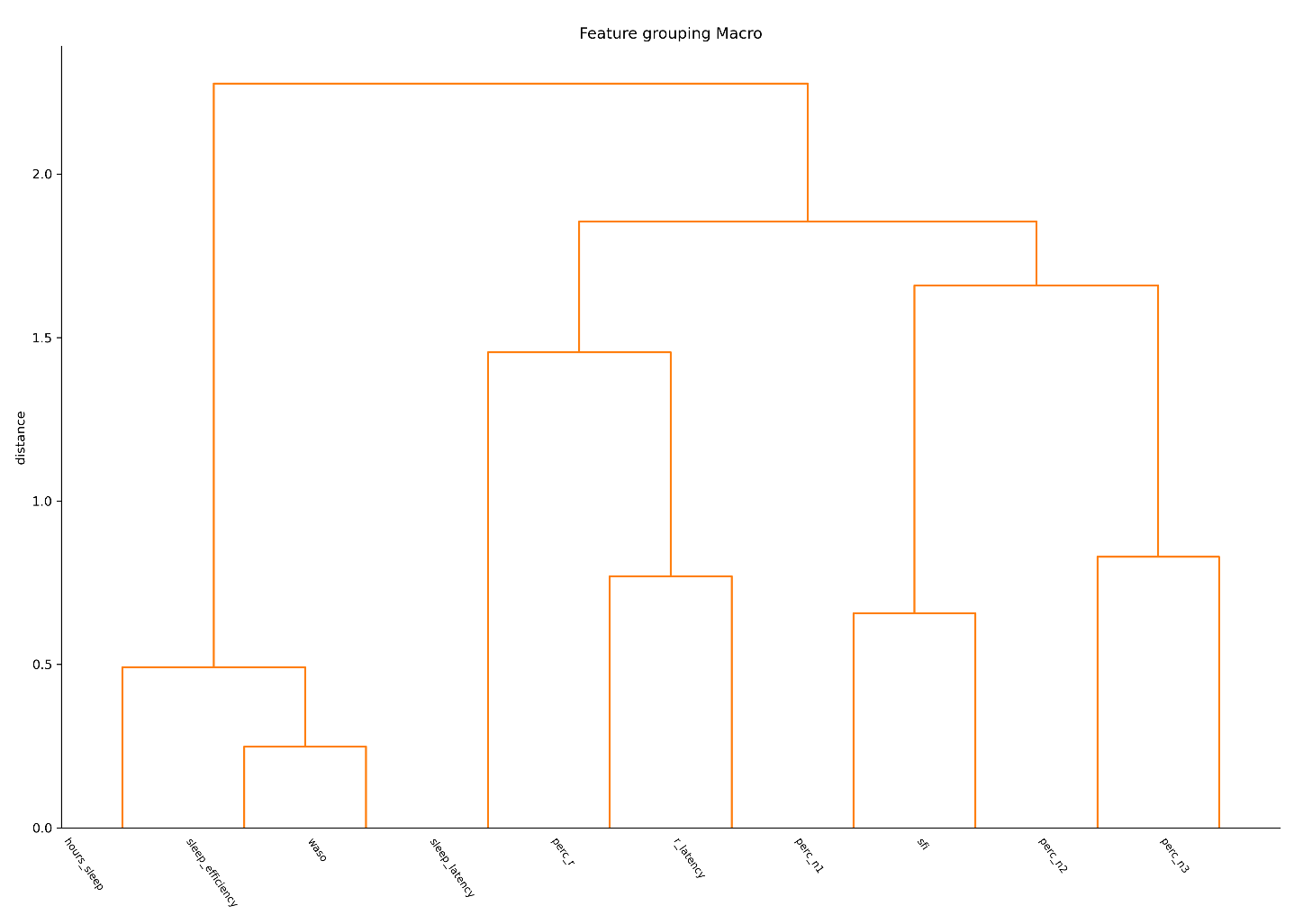
Number of features contained: 36

Features contained: ['slow\_bandpower\_mean\_f\_r', 'slow\_bandpower\_mean\_c\_r', 'slow\_bandpower\_mean\_o\_r', 'delta\_bandpower\_mean\_f\_r', 'delta\_bandpower\_mean\_c\_r', 'delta\_bandpower\_mean\_o\_r', 'theta\_bandpower\_mean\_f\_r', 'theta\_bandpower\_mean\_c\_r', 'theta\_bandpower\_mean\_o\_r', 'theta/alpha\_mean\_f\_r', 'theta/alpha\_mean\_c\_r', 'theta/alpha\_mean\_o\_r', 'slow\_bandpower\_std\_f\_r', 'slow\_bandpower\_std\_c\_r', 'slow\_bandpower\_std\_o\_r', 'delta\_bandpower\_std\_f\_r', 'delta\_bandpower\_std\_c\_r', 'delta\_bandpower\_std\_o\_r', 'theta\_bandpower\_std\_f\_r', 'theta\_bandpower\_std\_c\_r', 'theta\_bandpower\_std\_o\_r', 'theta/alpha\_std\_f\_r', 'theta/alpha\_std\_c\_r', 'theta/alpha\_std\_o\_r', 'slow\_bandpower\_min\_f\_r', 'slow\_bandpower\_min\_c\_r', 'slow\_bandpower\_min\_o\_r', 'delta\_bandpower\_min\_f\_r', 'delta\_bandpower\_min\_c\_r', 'delta\_bandpower\_min\_o\_r', 'theta\_bandpower\_min\_f\_r', 'theta\_bandpower\_min\_c\_r', 'theta\_bandpower\_min\_o\_r', 'theta/alpha\_min\_f\_r', 'theta/alpha\_min\_c\_r', 'theta/alpha\_min\_o\_r']

cluster 5, termed “Timing”

Number of features contained: 25

Features contained: ['first\_rem\_slowdelta\_bandpower\_mean\_f', 'first\_rem\_theta\_bandpower\_mean\_f', 'first\_rem\_alpha\_bandpower\_mean\_f', 'first\_rem\_fastband\_bandpower\_mean\_f', 'first\_rem\_slowdelta\_bandpower\_mean\_c', 'first\_rem\_fastband\_bandpower\_mean\_c', 'first\_rem\_slowdelta\_bandpower\_mean\_o', 'first\_rem\_theta\_bandpower\_mean\_o', 'first\_rem\_alpha\_bandpower\_mean\_o', 'first\_rem\_fastband\_bandpower\_mean\_o', 'remaining\_rem\_slowdelta\_bandpower\_mean\_f', 'remaining\_rem\_theta\_bandpower\_mean\_f', 'remaining\_rem\_alpha\_bandpower\_mean\_f', 'remaining\_rem\_fastband\_bandpower\_mean\_f', 'remaining\_rem\_slowdelta\_bandpower\_mean\_c', 'remaining\_rem\_theta\_bandpower\_mean\_c', 'remaining\_rem\_alpha\_bandpower\_mean\_c', 'remaining\_rem\_fastband\_bandpower\_mean\_c', 'remaining\_rem\_slowdelta\_bandpower\_mean\_o', 'remaining\_rem\_theta\_bandpower\_mean\_o', 'remaining\_rem\_alpha\_bandpower\_mean\_o', 'remaining\_rem\_fastband\_bandpower\_mean\_o', 'perc\_r', 'first\_rem\_duration', 'remaining\_rem\_duration']



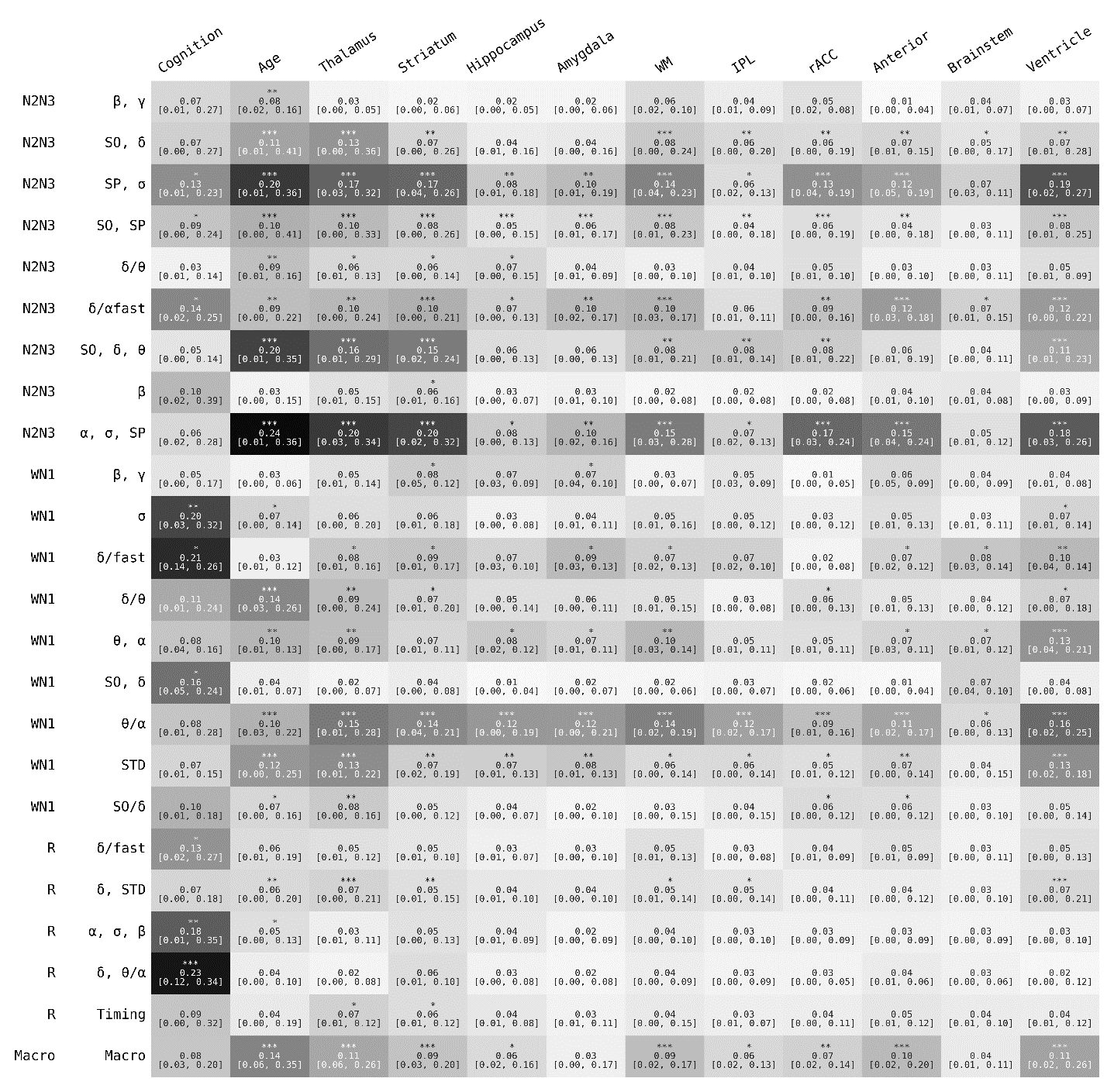
**Figure S6 Feature Grouping for macro sleep features**. Features were further clustered into subgroups or "clusters" based on their correlation matrices. The Ward's algorithm was employed for clustering, and a distance threshold of 12 was manually selected to guide the clustering process, resulting in a single cluster for macro features.

Macro cluster:

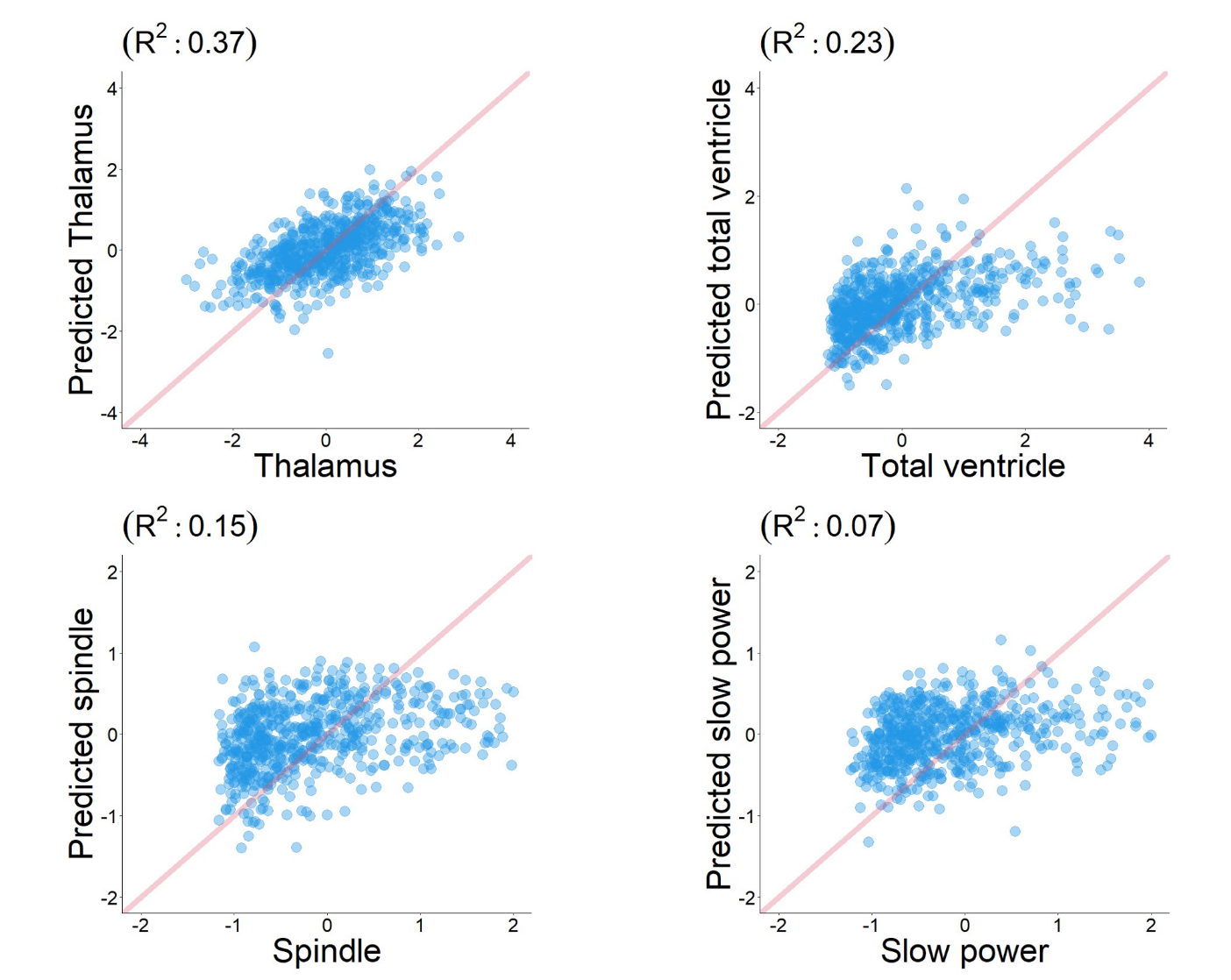
cluster 1, termed “Macro”

Number of features contained: 10

Features contained: ['hours\_sleep', 'perc\_n1', 'perc\_n2', 'perc\_n3', 'perc\_r', 'r\_latency', 'sfi', 'sleep\_efficiency', 'sleep\_latency', 'waso']



**Figure S7**: Result of all pairwise comparisons between sleep feature clusters and cognition, age and brain structure volumes. Values represent the median and 2.5-97.5 percentile correlation values out of all sleep features within a sleep cluster. Pearson correlation *p*-values: \* <0.05, \*\* <0.01, \*\*\* <0.001.



**Figure S8**: **The LOOCV Multivariate regression analysis when predicting selected brain structure volumes from EEG data, and selected EEG features from brain structure data.** **Top:** Predict the volumes of the thalamus and total ventricles from EEG features (*N*=623 subjects). **Bottom**: Predict fast sleep spindle density and slow delta power (0.4 – 4 Hz) from brain structure features (*N*=623 subjects).

**Table S2: Prediction performance of all variables vs. a-priori variables.**

| **Target variable** | **Input variables** | **Correlation** | ***P*\_value** | **R square** | **Confidence interval [0-95]** | | **Confidence interval [5-100]** | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **LB\*** | **UB\*** | **LB** | **UB** |
| MMSE | All MRI | 0.43 | 0.00E+00 | 0.16 | 0.14 | 0.54 | 0.31 | 0.66 |
| MMSE | All EEG | 0.56 | 1.34E-14 | 0.23 | 0.24 | 0.66 | 0.43 | 0.78 |
| MMSE | All MRI+ All EEG | 0.67 | 4.39E-22 | 0.4 | 0.36 | 0.75 | 0.56 | 0.83 |
| MMSE | A-priori EEG | 0.15 | 0.057009483 | 0 | -0.14 | 0.26 | 0.04 | 0.42 |
| MMSE | A-priori MRI | 0.18 | 0.02014387 | 0.01 | -0.09 | 0.29 | 0.07 | 0.43 |
| Age | All MRI | 0.76 | 5.46E-116 | 0.57 | 0.68 | 0.78 | 0.73 | 0.81 |
| Age | All EEG | 0.69 | 8.04E-91 | 0.48 | 0.6 | 0.73 | 0.66 | 0.78 |
| Age | All MRI+ All EEG | 0.82 | 1.13E-150 | 0.67 | 0.76 | 0.84 | 0.79 | 0.87 |
| Age | A-priori EEG | 0.4 | 7.43E-26 | 0.13 | 0.23 | 0.51 | 0.32 | 0.58 |
| Age | A-priori MRI | 0.7 | 3.19E-94 | 0.49 | 0.63 | 0.73 | 0.67 | 0.77 |
| Thalamus | All EEG | 0.61 | 3.97E-64 | 0.37 | 0.5 | 0.65 | 0.57 | 0.69 |
| Thalamus | A-priori EEG | 0.42 | 1.39E-28 | 0.18 | 0.29 | 0.47 | 0.37 | 0.55 |
| Fast spindle density | All MRI | 0.39 | 1.11E-23 | 0.15 | 0.27 | 0.43 | 0.34 | 0.5 |
| Fast spindle density | A-priori MRI | 0.32 | 1.10E-16 | 0.1 | 0.2 | 0.38 | 0.27 | 0.43 |
| Total ventricle | All EEG | 0.5 | 5.31E-41 | 0.25 | 0.39 | 0.55 | 0.45 | 0.61 |
| Total ventricle | A-priori EEG | 0.31 | 3.52E-15 | 0.09 | 0.16 | 0.37 | 0.24 | 0.44 |
| Slow delta band power | All MRI | 0.28 | 9.64E-13 | 0.07 | 0.12 | 0.34 | 0.22 | 0.4 |
| Slow delta band power | A-priori MRI | 0.29 | 8.36E-14 | 0.09 | 0.16 | 0.35 | 0.23 | 0.43 |
| Slow oscillation rate | All MRI | 0.27 | 1.26E-11 | 0.07 | 0.14 | 0.32 | 0.21 | 0.4 |
| Slow oscillation rate | A-priori MRI | 0.23 | 7.05E-09 | 0.05 | 0.09 | 0.29 | 0.17 | 0.37 |
| Slow spindle density | All MRI | 0.27 | 1.02E-11 | 0.07 | 0.14 | 0.32 | 0.21 | 0.38 |
| Slow spindle density | A-priori MRI | 0.16 | 4.73E-05 | 0.03 | 0 | 0.23 | 0.1 | 0.31 |
| Hippocampus | All EEG | 0.28 | 2.26E-12 | 0.07 | 0.14 | 0.33 | 0.22 | 0.4 |
| Hippocampus | A-priori EEG | 0.17 | 2.48E-05 | 0.03 | 0.02 | 0.23 | 0.11 | 0.29 |
| Amygdala | All EEG | 0.33 | 2.24E-17 | 0.1 | 0.2 | 0.39 | 0.27 | 0.45 |
| Amygdala | A-priori EEG | 0.17 | 2.48E-05 | 0.03 | 0.02 | 0.23 | 0.11 | 0.3 |

\*LB:lower band ;UB:upper band