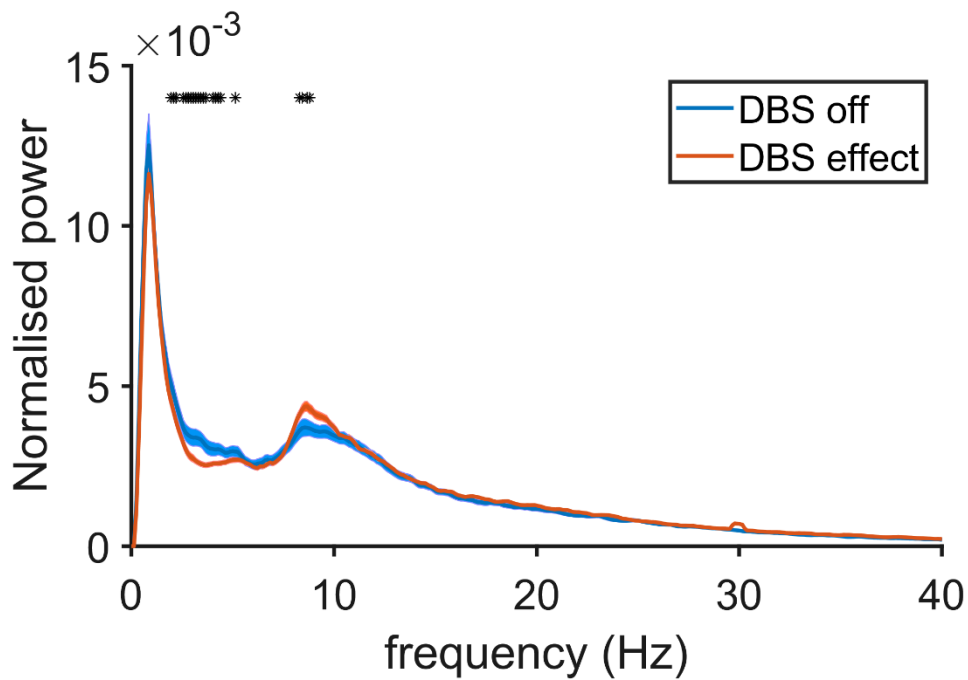


**SUPPLEMENTARY MATERIAL**



**Supplementary Figure 1.** Normalised power spectra (averaged over all regions) for the DBS OFF state and DBS effect with their respective 95% confidence intervals. \* indicate frequencies for which the difference between the spectra for the two conditions was statistically significant (paired t-test;  $p < .05$ ).

**Supplementary Table 1.** Regions of the AAL-atlas.

AAL atlas				
<b>Frontal lobe</b>				
1	Rectus_L		40	Rectus_R
2	Olfactory_L		41	Olfactory_R
3	Frontal_Sup_Orb_L		42	Frontal_Sup_Orb_R
4	Frontal_Med_Orb_L		43	Frontal_Med_Orb_R
5	Frontal_Mid_Orb_L		44	Frontal_Mid_Orb_R
6	Frontal_Inf_Orb_L		45	Frontal_Inf_Orb_R
7	Frontal_Sup_L		46	Frontal_Sup_R
8	Frontal_Mid_L		47	Frontal_Mid_R

9	Frontal_Inf_Oper_L		48	Frontal_Inf_Oper_R
10	Frontal_Inf_Tri_L		49	Frontal_Inf_Tri_R
11	Frontal_Sup_Medial_L		50	Frontal_Sup_Medial_R
12	Supp_Motor_Area_L		51	Supp_Motor_Area_R
13	Paracentral_Lobule_L		52	Paracentral_Lobule_R
14	Precentral_L		53	Precentral_R
15	Rolandic_Oper_L		54	Rolandic_Oper_R
<b>Parietal lobe</b>				
16	Postcentral_L		55	Postcentral_R
17	Parietal_Sup_L		56	Parietal_Sup_R
18	Parietal_Inf_L		57	Parietal_Inf_R
19	SupraMarginal_L		58	SupraMarginal_R
20	Angular_L		59	Angular_R
21	Precuneus_L		60	Precuneus_R
<b>Occipital lobe</b>				
22	Occipital_Sup_L		61	Occipital_Sup_R
23	Occipital_Mid_L		62	Occipital_Mid_R
24	Occipital_Inf_L		63	Occipital_Inf_R
25	Calcarine_L		64	Calcarine_R
26	Cuneus_L		65	Cuneus_R
27	Lingual_L		66	Lingual_R
<b>Temporal lobe</b>				
28	Fusiform_L		67	Fusiform_R
29	Heschl_L		68	Heschl_R
30	Temporal_Sup_L		69	Temporal_Sup_R
31	Temporal_Mid_L		70	Temporal_Mid_R
32	Temporal_Inf_L		71	Temporal_Inf_R
33	Temporal_Pole_Sup_L		72	Temporal_Pole_Sup_R
34	Temporal_Pole_Mid_L		73	Temporal_Pole_Mid_R
35	ParaHippocampal_L		74	ParaHippocampal_R
<b>Insula and cingulate gyri</b>				
36	Cingulum_Ant_L		75	Cingulum_Ant_R

37	Cingulum_Mid_L		76	Cingulum_Mid_R
38	Cingulum_Post_L		77	Cingulum_Post_R
39	Insula_L		78	Insula_R
<b>Central structures</b>				
79	Hippocampus_L		80	Hippocampus_R
81	Amygdala_L		82	Amygdala_R
83	Caudate_L		84	Caudate_R
85	Putamen_L		86	Putamen_R
87	Pallidum_L		88	Pallidum_R
89	Thalamus_L		90	Thalamus_R