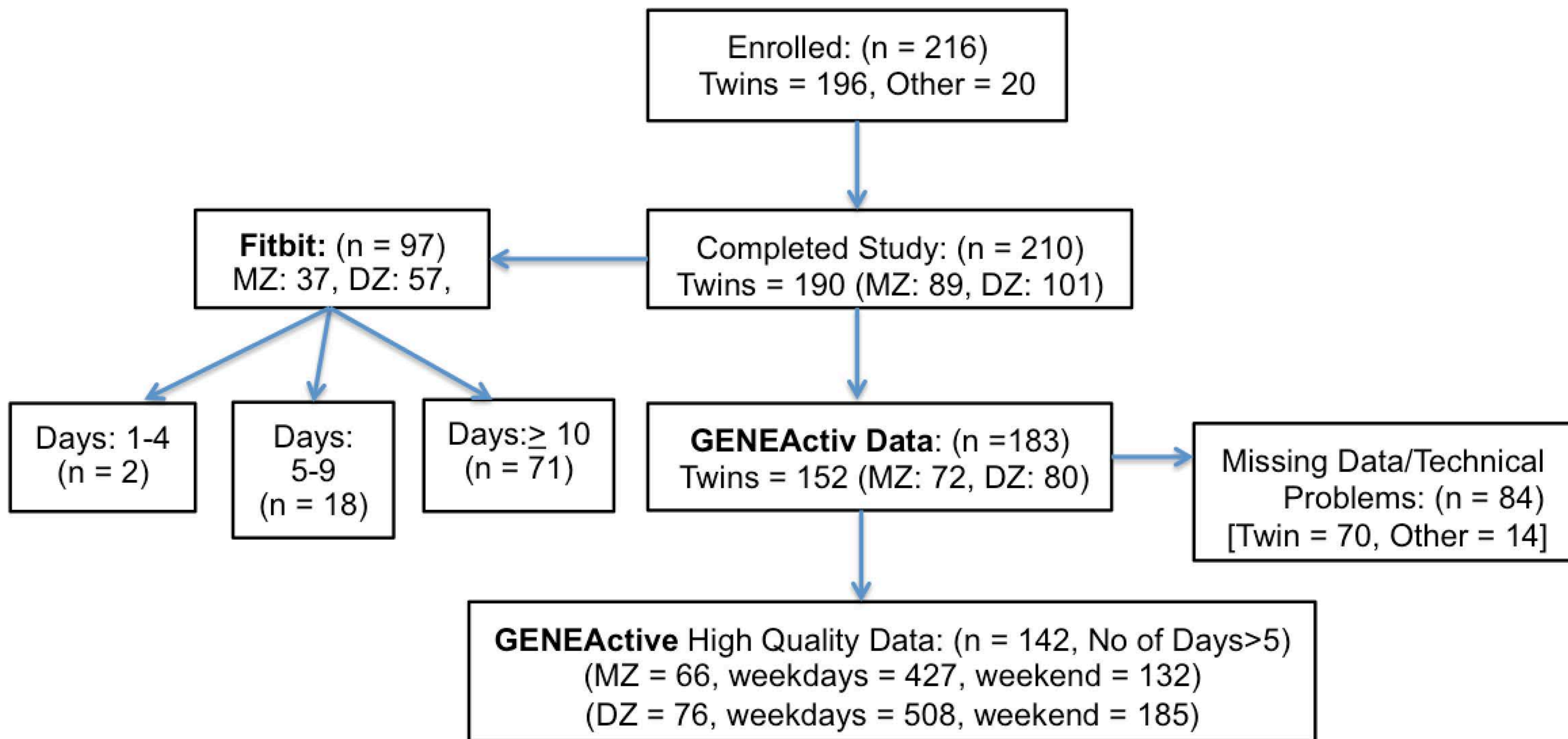
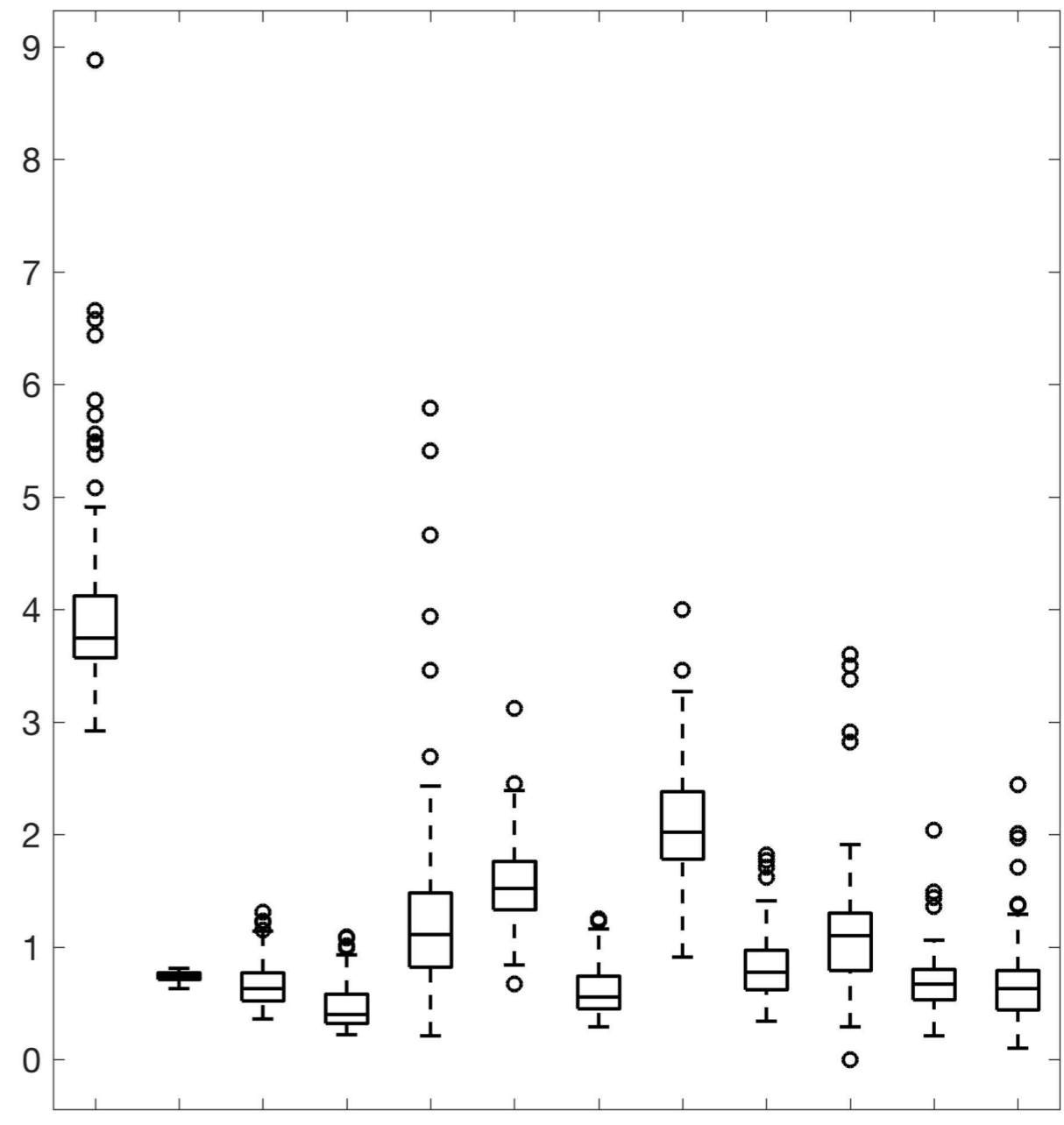
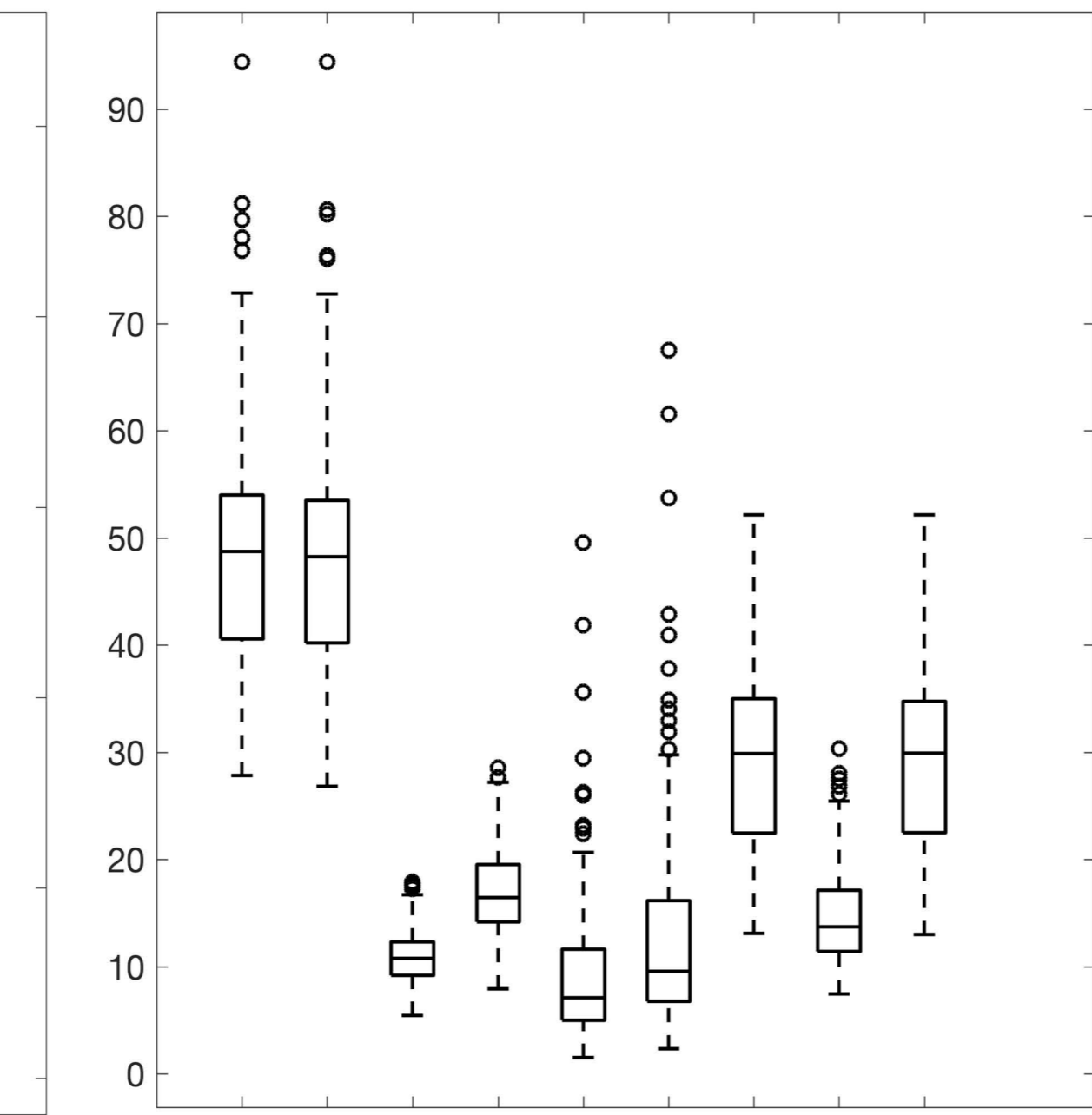
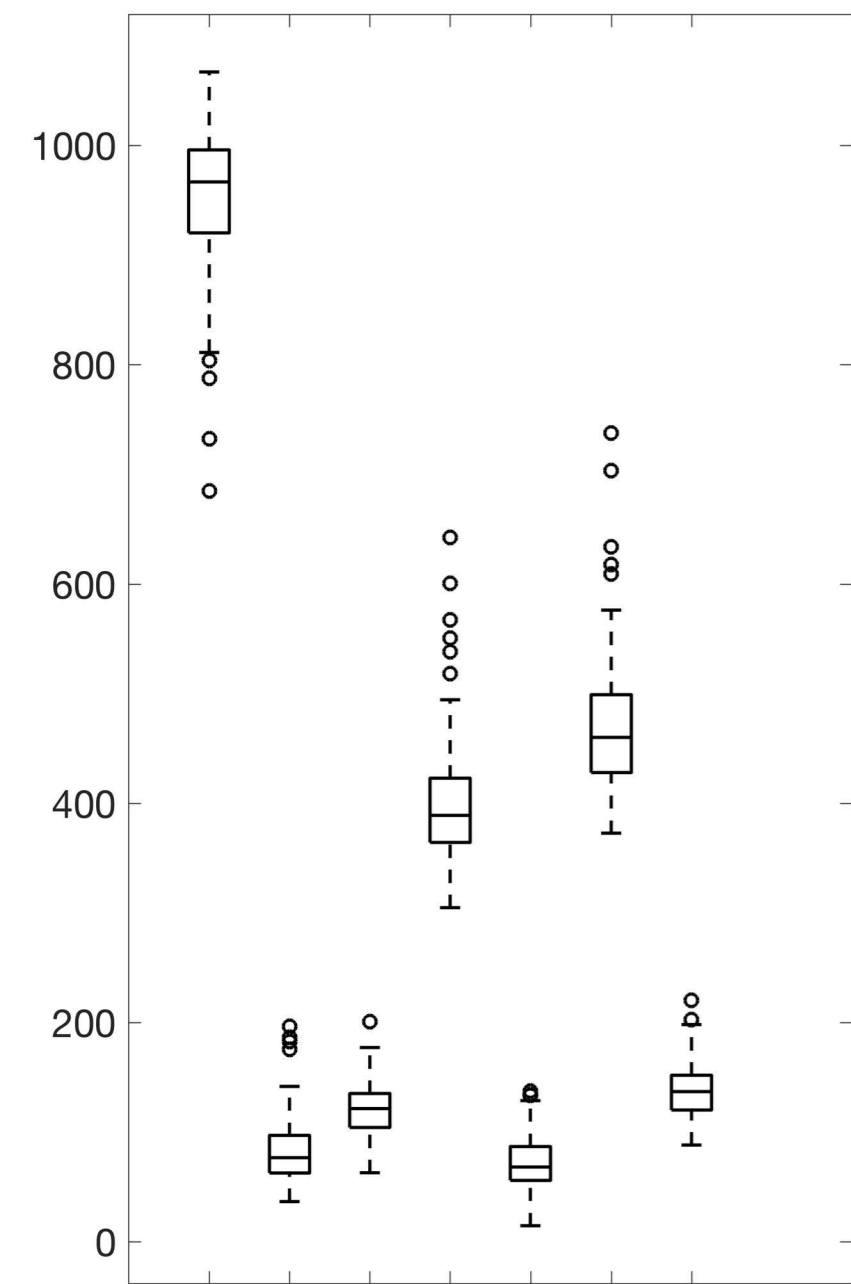


Figure S1





Active Wake
 Quiet wake
 Intermediate Sleep
 Light Sleep
 Deep Sleep
 Total Sleep
 Wake After Sleep Onset

No of Sleep Episodes
 No of wake Episodes
 Mean duration of sleep episodes
 Mean duration of wake episodes
 Variance activity in assessed time
 Variance of activity during wake
 Number of sleep episodes during sleep session
 Mean duration of sleep episodes during sleep session
 Number of wake episodes during sleep session

Mean activity during sleep session
 Sleep efficiency
 Mean activity during main rest episode
 Median Activity During rest Episodes
 Mean variance of activity during rest episode
 Mean activity in assessed time
 Median activity in assessed time
 Mean activity during wake
 Median activity during wake
 Total time in homothermic state during sleep
 Total time in homothermic state during wake

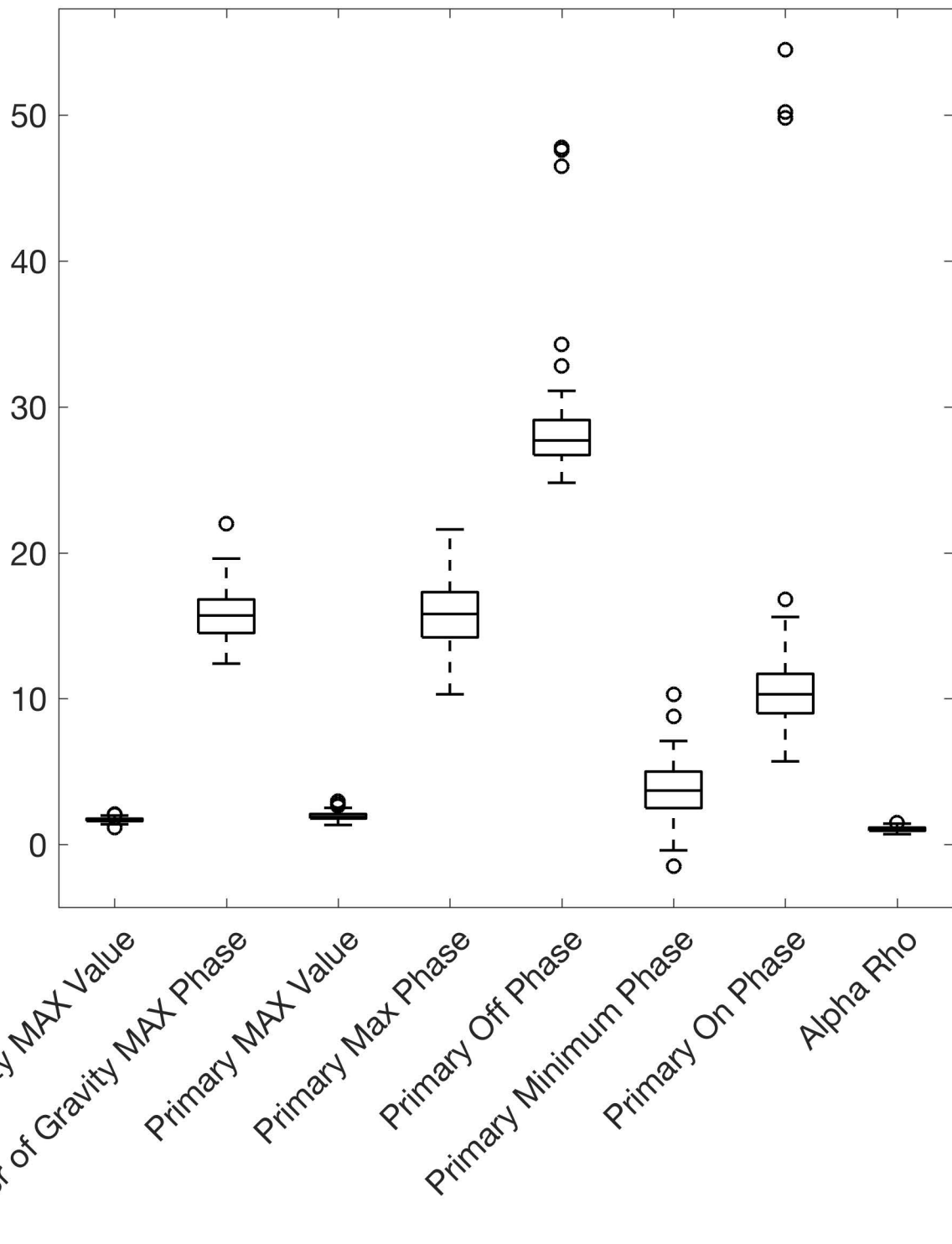
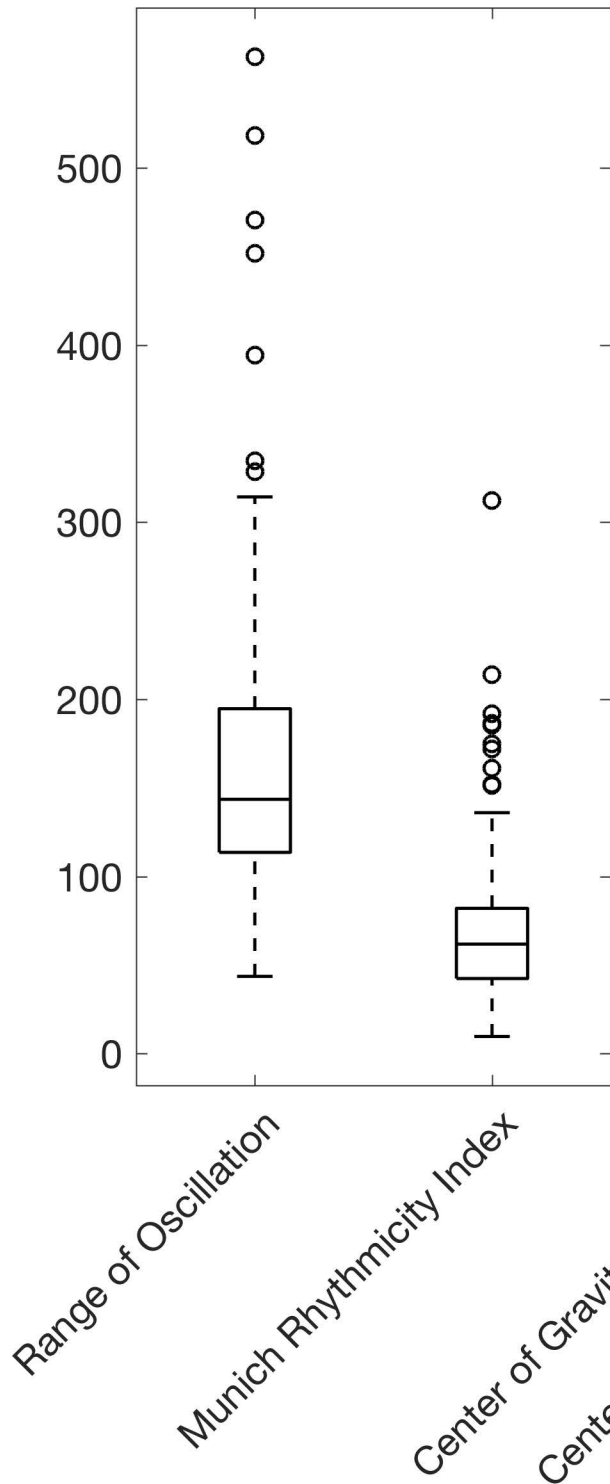
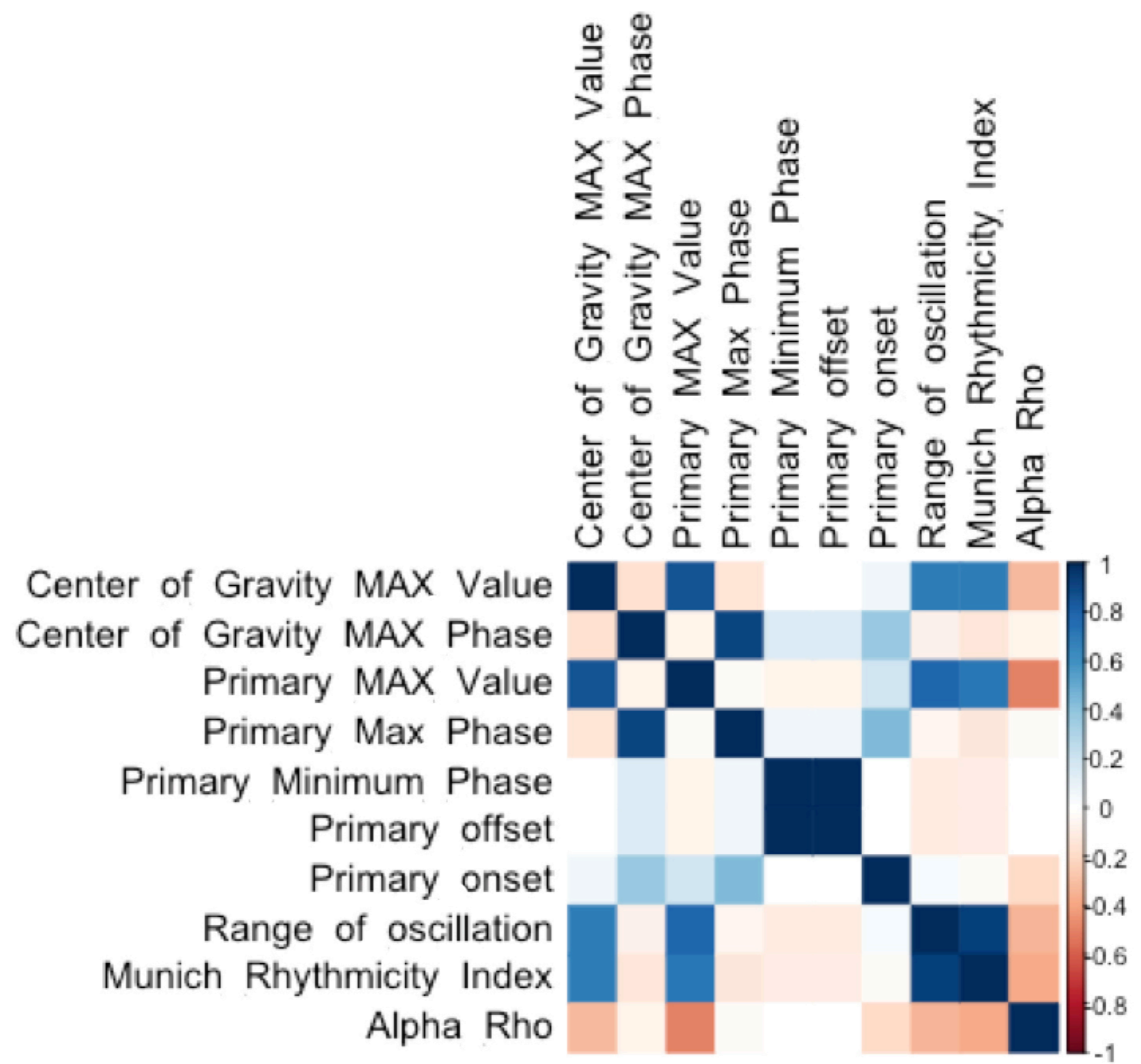
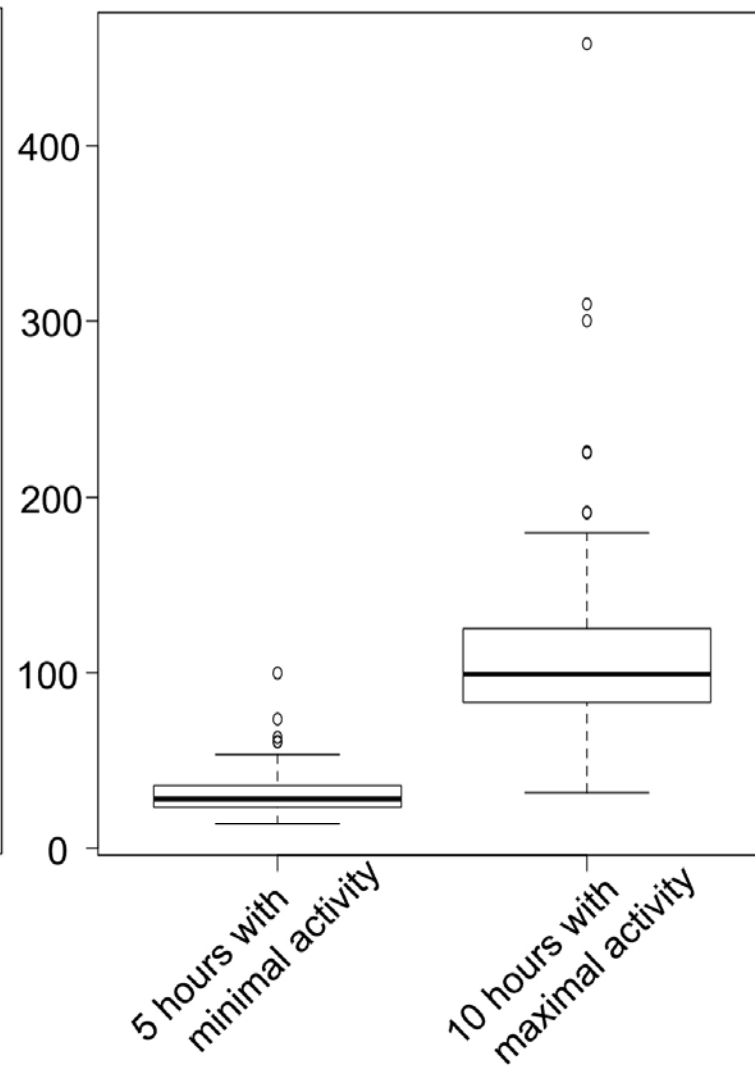
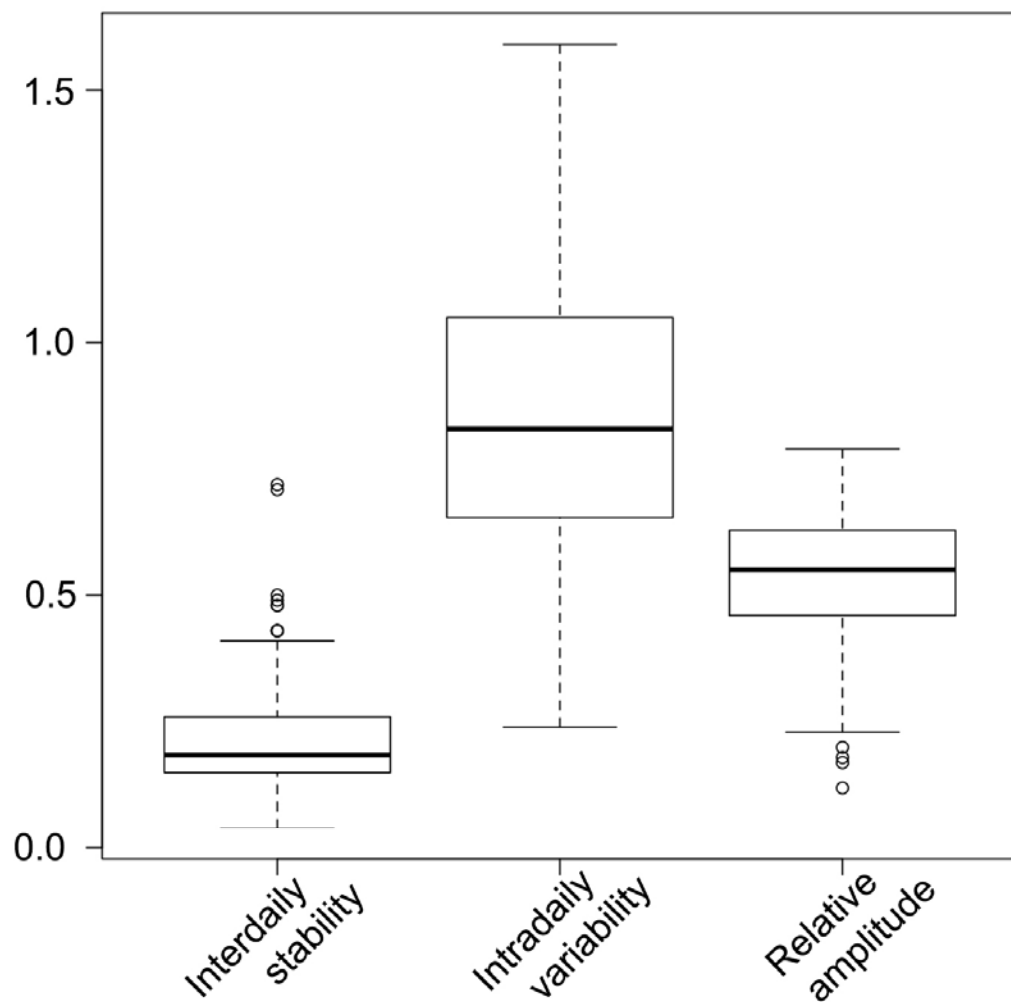


Figure S3B:
 Intercorrelations among
 ChronoSapiens parameters





Probability density

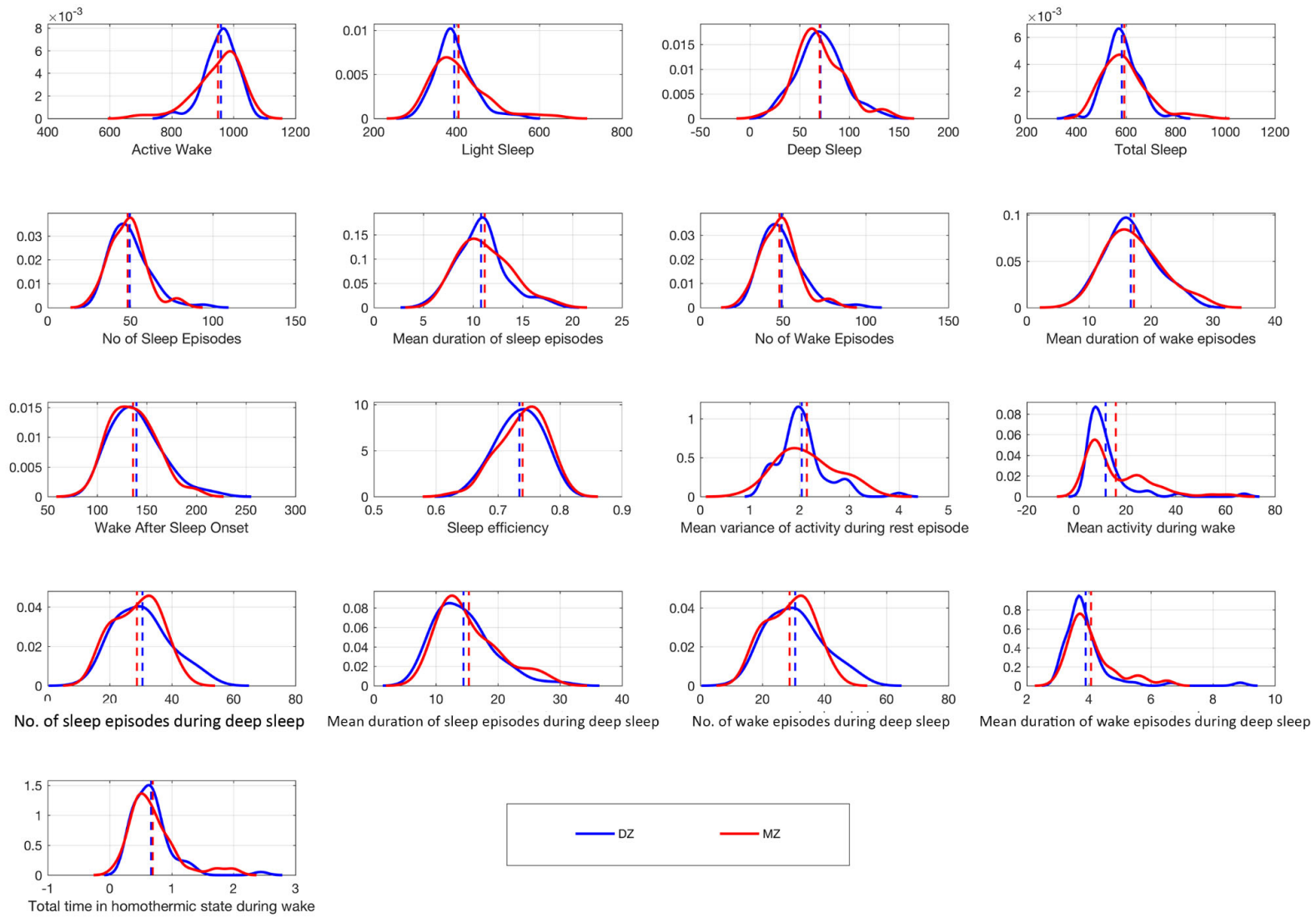


Figure S5A

Probability density

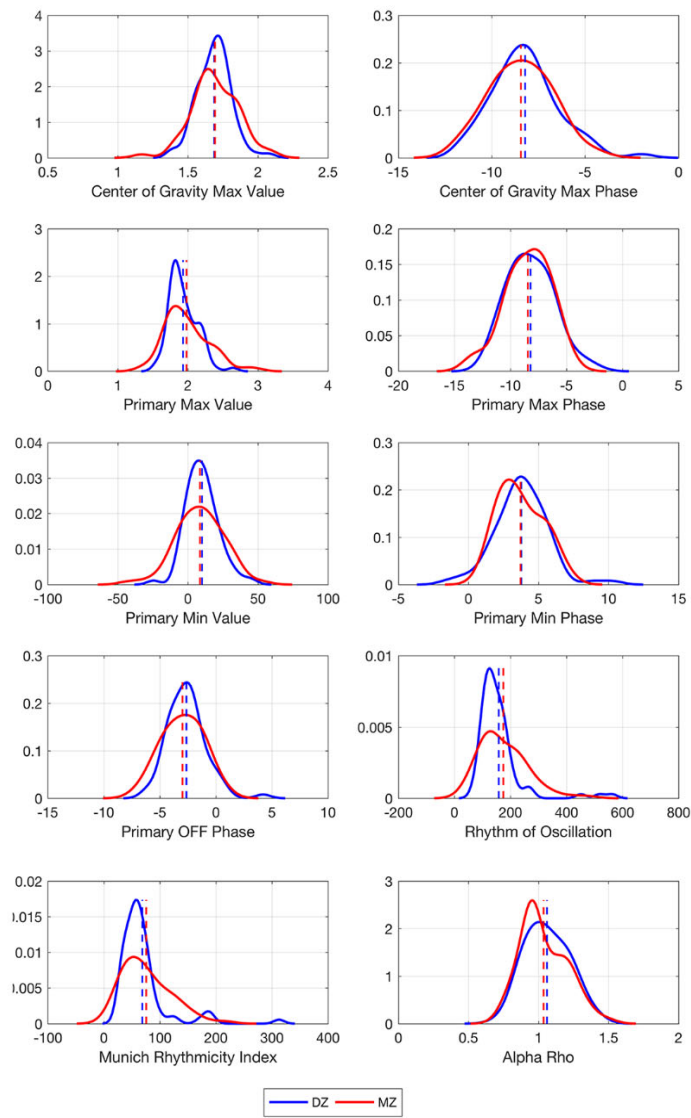


Figure S5B

Probability density

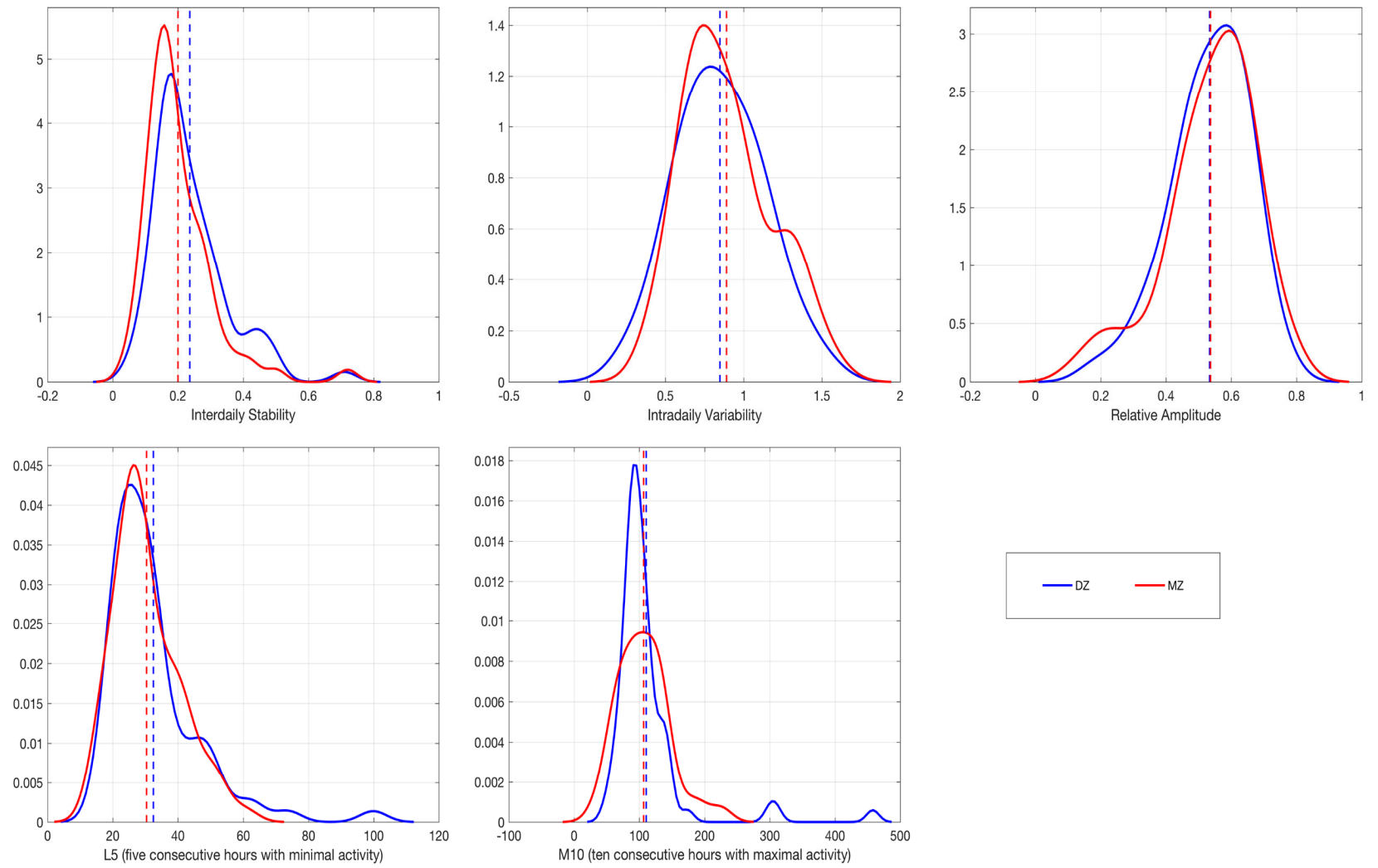


Figure S5C

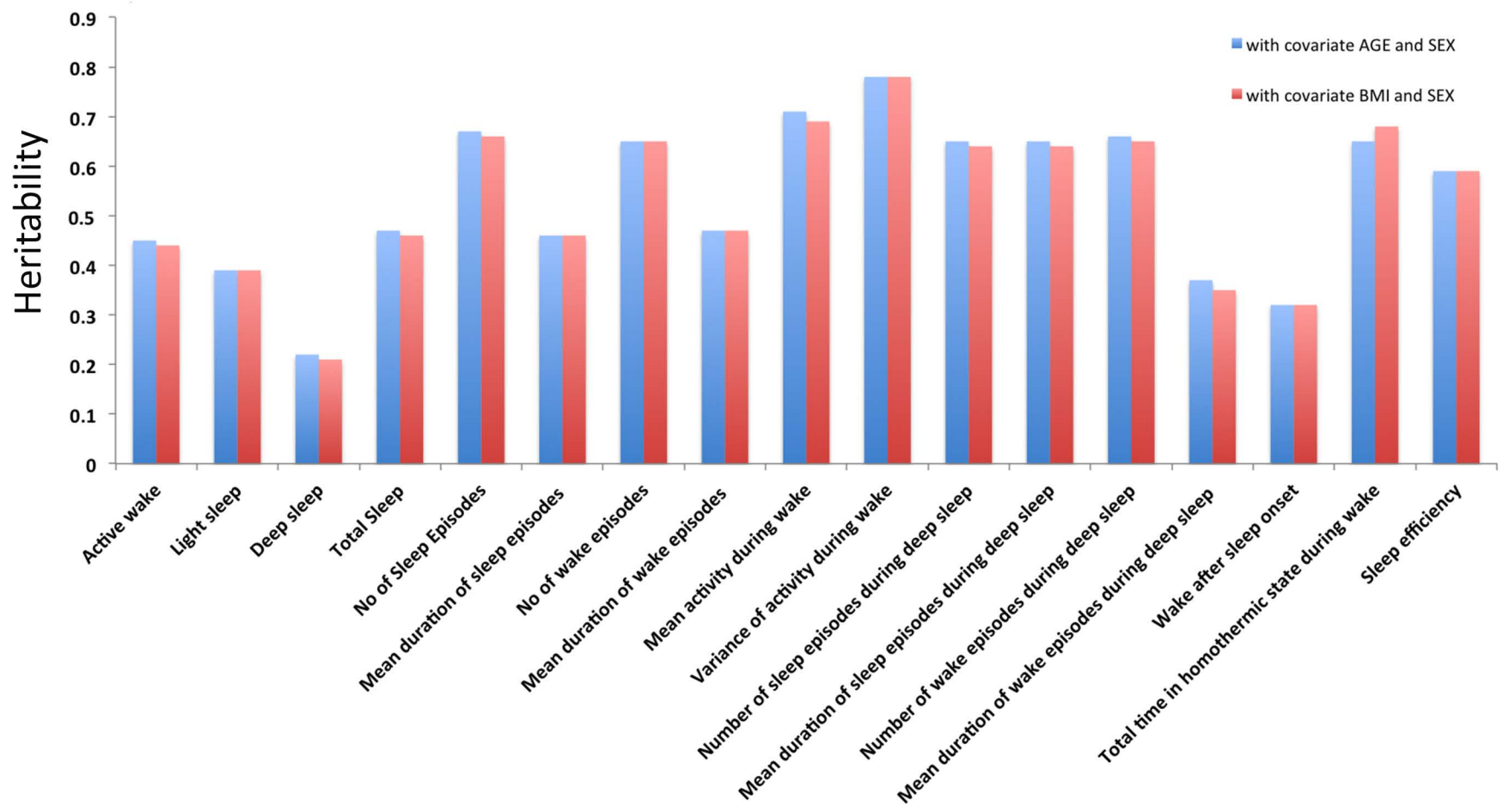


Figure S6.

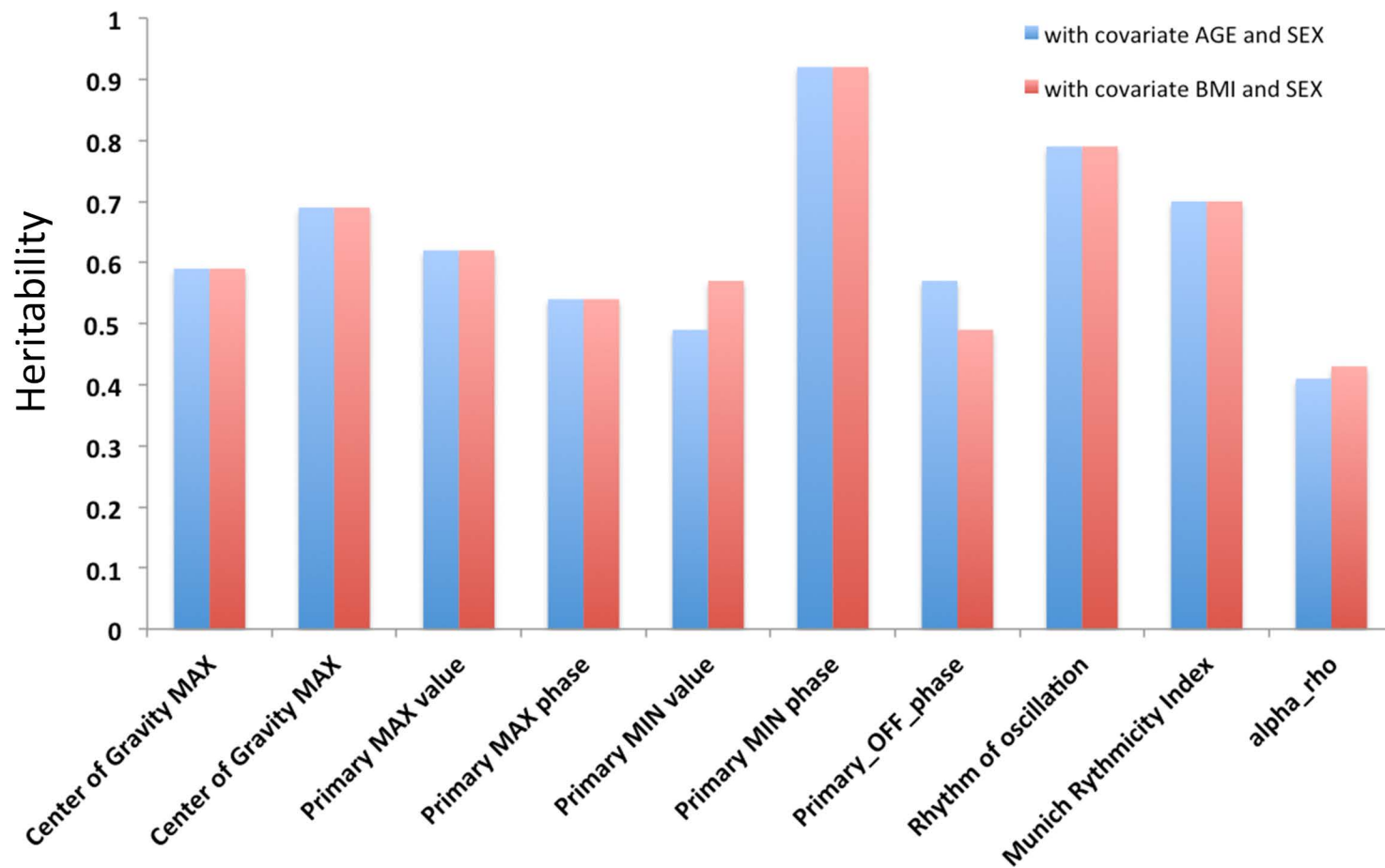


Figure S7.

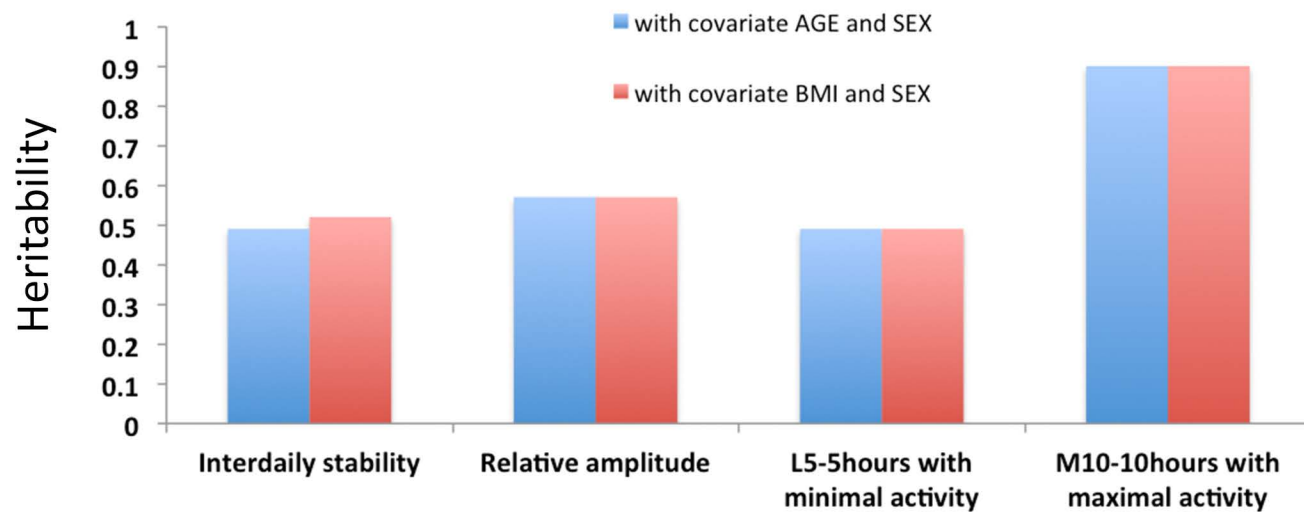


Figure S8.

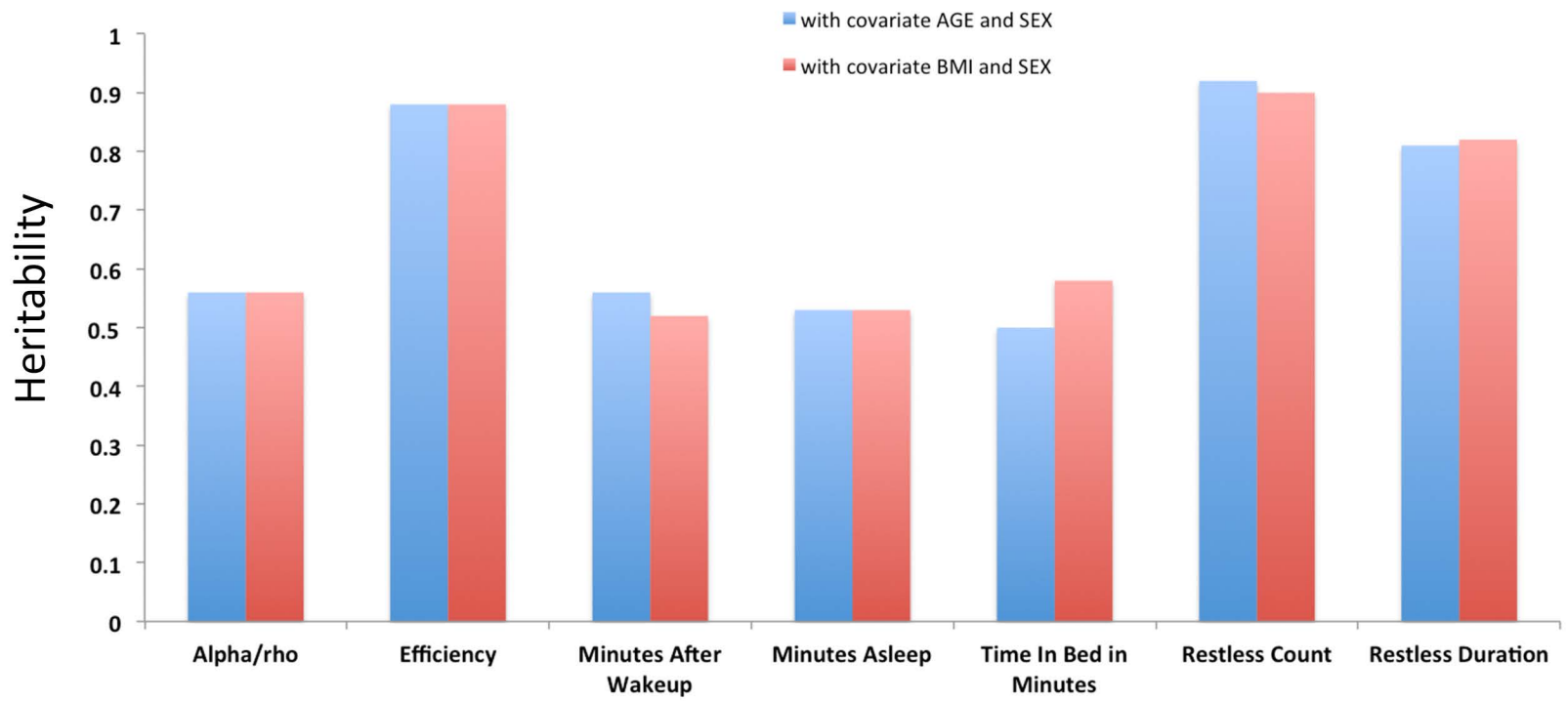


Figure S9.

Table S1: Heritability estimates and associated statistics from SOLAR

Pennzzz_Trait	Heritability with covariate AGE and SEX	P value	Heritability with covariate BMI and SEX	p value
Active wake	0.45	0.0002	0.44	0.0002
Light sleep	0.39	0.001	0.39	0.001
Deep sleep	0.22	0.06	0.21	0.06
Total Sleep	0.47	0.06	0.46	0.06
No of Sleep Episodes	0.67	0.0001	0.66	0.0001
Mean duration of sleep episodes	0.46	4.00E-05	0.46	4.00E-05
No of wake episodes	0.65	1.00E-03	0.65	1.00E-03
Mean duration of wake episodes	0.47	7.00E-05	0.47	7.00E-05
Mean activity during wake	0.71	0.0008	0.69	0.0008
Variance of activity during wake	0.78	2.40E-08	0.78	2.40E-08
Number of sleep episodes during deep sleep	0.65	8.81E-10	0.64	8.81E-10
Mean duration of sleep episodes during deep sleep	0.65	5.00E-05	0.64	5.00E-05
Number of wake episodes during deep sleep	0.66	7.00E-06	0.65	7.00E-06
Mean duration of wake episodes during deep sleep	0.37	4.00E-05	0.35	4.00E-05
Wake after sleep onset	0.32	1.00E-02	0.32	1.00E-02
Total time in homothermic state during wake	0.65	0.0005	0.68	0.0005
Sleep efficiency	0.59	3.00E-03	0.59	3.00E-03
ChronoSapiens_Traits	Heritability with covariate AGE and SEX	P value	Heritability with covariate BMI and SEX	p value
Center of Gravity MAX value	0.59	0.0000024	0.59	0.0000024
Center of Gravity MAX phase	0.69	0.0000002	0.69	0.0000002
Primary MAX value	0.62	0.0000001	0.62	0.0000001
Primary MAX phase	0.54	0.000006	0.54	0.000006
Primary MIN value	0.49	0.000005	0.57	0.000005
Primary MIN phase	0.92	0.000006	0.92	0.000006
Primary_OFF_phase	0.57	0.000003	0.49	0.000003
Rhythm of oscillation	0.79	4.80E-12	0.79	4.80E-12
Munich Rythmicity Index	0.7	2.32E-08	0.7	2.32E-08
alpha_rho	0.41	0.001	0.43	0.001
Traits	Heritability with covariate AGE and SEX	P value	Heritability with covariate BMI and SEX	p value
Interdaily stability	0.49	0.002	0.52	0.001
Relative amplitude	0.57	0.00005	0.57	0.00005
L5-5hours with minimal activity	0.49	0.003	0.49	0.003
M10-10hours with	0.9	8.48E-15	0.9	8.48E-12

maximal activity				
Fitbit	Heritability with covariate AGE and SEX	P value	Heritability with covariate BMI and SEX	p value
Alpha/rho	0.56	0.02	0.56	0.01
Efficiency	0.88	0.00002	0.88	0.00002
Minutes After Wakeup	0.56	0.003	0.52	0.01
Minutes Asleep	0.53	0.005	0.53	0.005
Time In Bed in Minutes	0.5	0.01	0.58	0.01
Restless Count	0.92	0.000005	0.9	0.00005