

Comparison of SAD variance among methods to adjust for population structure

Number of significant PC-wise  
SAD components in first 20 PCs

None	GWAS sample PCs	Target sample PCs	Both sets of PCs	Linear Mixed Model (LMM)	LMM with GWAS sample PCs
2	1	1	1	2	1

Median across traits

Isotropic inflation

None	GWAS sample PCs	Target sample PCs	Both sets of PCs	Linear Mixed Model (LMM)	LMM with GWAS sample PCs
2	2.1	2.2	2.3	1.3	1.3

0	0	0	0	1	1
8	7	7	6	7	7
0	0	0	1	0	0
6	3	4	2	5	2
1	1	0	2	1	1
1	2	2	1	3	2
0	0	0	0	2	0
0	0	0	0	4	3
2	2	2	2	2	2
2	1	1	2	0	0
2	0	1	1	0	0
0	1	0	0	2	1
1	2	1	2	1	3
3	1	2	1	2	1
5	6	6	6	6	6
3	2	1	0	2	1
4	4	4	4	3	2

Body mass index

Hair color

Years of schooling

Hip circumference

Household income

Overall health rating

Pack years of smoking

Birth weight

Waist circumference

Neuroticism score

Hand grip strength

Pulse rate

Height

Forced vital capacity

Skin color

Alcohol intake frequency

Diastolic blood pressure

5.01	9.53	2.32	2.38	1.47	1.38
1.98	3.21	4.09	2.15	1.01	1.00
2.88	3.09	2.56	3.72	2.21	2.30
1.89	3.09	1.50	1.47	1.15	1.09
2.87	2.66	2.90	2.83	2.46	2.13
2.51	2.58	13.75	2.33	1.54	1.47
1.94	2.56	2.11	2.91	2.27	1.97
2.07	2.12	2.04	2.05	1.38	1.45
1.87	2.07	1.96	2.35	1.29	1.31
2.78	2.06	2.32	2.71	2.28	2.17
2.29	2.02	2.19	1.80	1.35	1.26
2.05	1.93	5.45	5.05	3.25	1.85
1.77	1.63	1.68	1.61	1.26	1.26
1.58	1.55	2.85	2.04	1.29	1.28
1.51	1.48	1.51	4.46	0.87	0.86
1.91	1.37	1.29	1.81	0.98	1.09
1.45	1.29	1.48	1.34	1.01	0.96