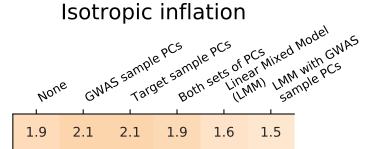
Comparison of SAD variance among methods to adjust for population structure

across traits

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

PCS CS ad Model CWAS

Isotropic inflation



NC	None GWAS sample he Both sets of PCS Mixed with PCS												
2	2	2	-	L	2	2	2	2	1	L		Medi	an

5	4	6	4	6	6
0	1	0	0	1	1
1	0	0	1	1	1
0	1	0	0	2	1
2	2	2	2	2	2
0	1	0	0	1	0
1	2	1	2	0	0
3	1	1	1	2	2
1	0	0	0	1	0
2	2	3	2	2	1
5	3	4	4	3	3
1	0	1	1	1	1
3	4	3	3	3	3
0	0	0	0	1	1
8	9	8	7	8	9
4	3	4	3	1	1
3	5	3	4	5	3

Skin color
Overall health rating
Waist circumference
Years of schooling
Body mass index
Neuroticism score
Hand grip strength
Household income
Birth weight
Pulse rate
Hip circumference
Alcohol intake frequency
Height
Pack years of smoking
Hair color
Forced vital capacity
Diastolic blood pressure

1.82	6.38	3.27	1.68	0.87	0.85
2.33	3.19	2.01	2.19	1.77	1.95
4.57	2.59	3.32	2.24	1.65	1.79
3.96	2.45	2.44	2.47	2.01	1.88
1.84	2.22	2.26	2.06	3.02	1.50
1.87	2.10	1.75	1.56	1.85	2.54
1.70	2.10	2.07	3.04	1.65	1.54
3.03	2.08	2.60	2.12	2.31	2.11
2.08	2.07	2.03	2.77	1.79	3.11
1.95	2.05	3.94	1.93	1.63	1.71
1.85	1.83	1.85	1.75	1.23	1.27
2.06	1.80	2.04	1.85	1.69	1.59
2.07	1.68	2.57	1.68	1.64	1.34
1.54	1.65	1.96	1.88	1.29	1.49
1.67	1.61	3.00	1.61	1.07	1.04
1.69	1.53	1.63	1.47	1.35	1.23
1.42	1.39	1.63	3.24	1.26	1.29