Α Power under AR1 (strong selection against causal alleles); VE per gene = 1% 1.00 MiST SKAT-O KBAC SKAT UNIQ VT BURDEN WILCOX-WSS CMC FROWGT CAL PHA 0.75 Power 0.50 0.25 0.00 0.05 0.01 0.001 1e-04 1e-05 2.5e-06 Significance threshold Power under AR2 (moderate selection against causal alleles); VE per gene = 1% 1.00 SKAT UNIQ MIST WILCOX-WSS SKAT-KBAC BURDEN FRQWGT 0.75 0.50 Power 0.25 0.00 0.001 0.05 0.01 1e-04 1e-05 2.5e-06 Significance threshold Power under AR3 (weak selection against causal alleles); VE per gene = 1% 1.00 MIST SKAT-O WILCOX-WSS CMC CALPHA SKAT UNIQ VT BURDEN KBAC FRQWGT 0.75 0.50 Power 0.25

0.00

0.05

0.01

0.001

1e-04

Significance threshold

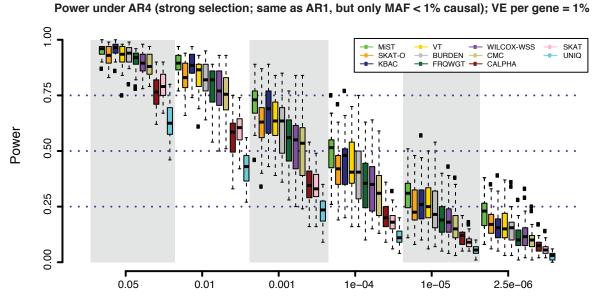
2.5e-06

1e-05

S7 Figure: Power of gene-based tests in 3K samples, as a function of significance threshold, under each simulated architecture.

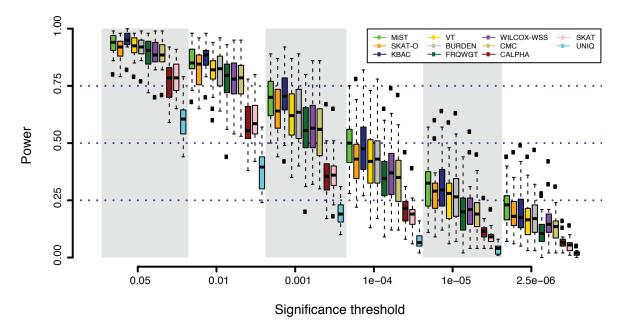


В



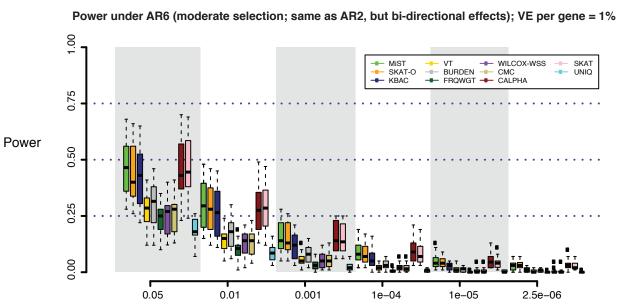
Significance threshold







С



Significance threshold