Supplemental Data

Article

Methods for Detecting Associations with Rare Variants for Common Diseases: Application to Analysis of Sequence Data

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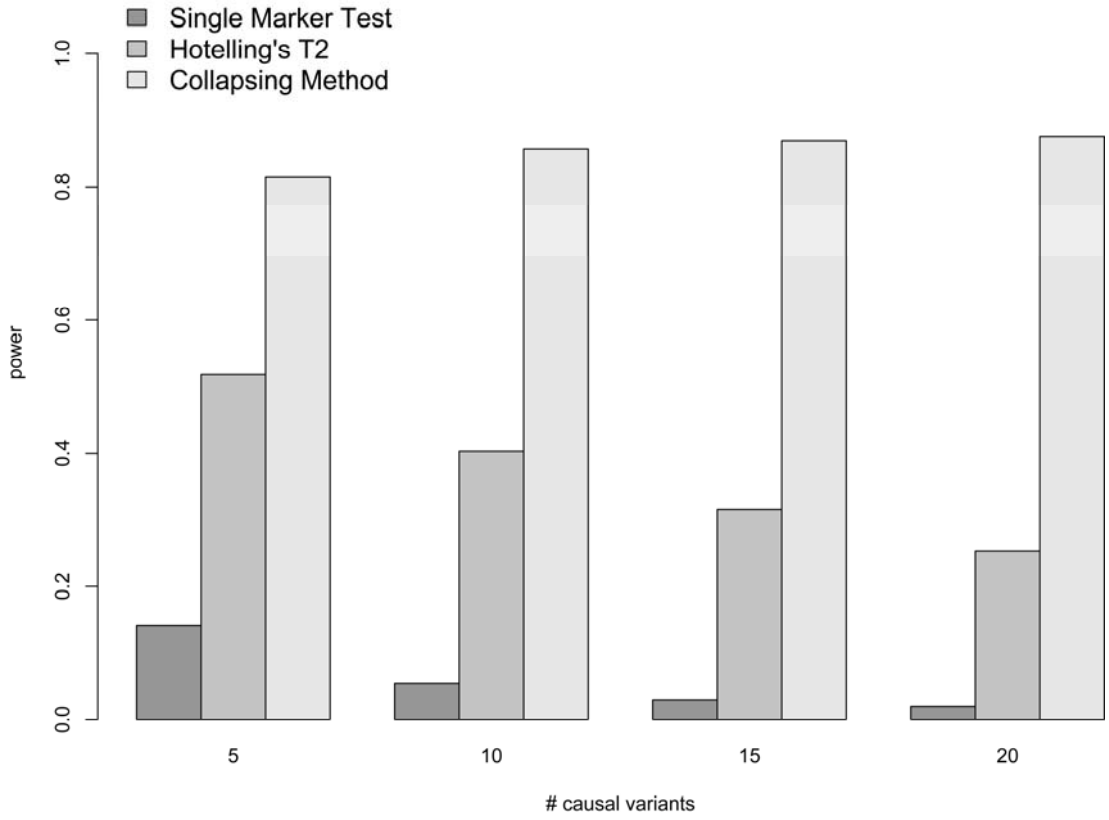

Figure S1. The Power to Detect an Association for Rare Variants for the Single-Marker test, Hotelling's T^2 Test, and the Collapsing Method

The power is calculated for 250 cases and 250 controls for a locus RR of 2.0 where the total variant frequency is 0.05 and there are 5, 10 and 20 causal variants within the locus each with equal allele frequency.

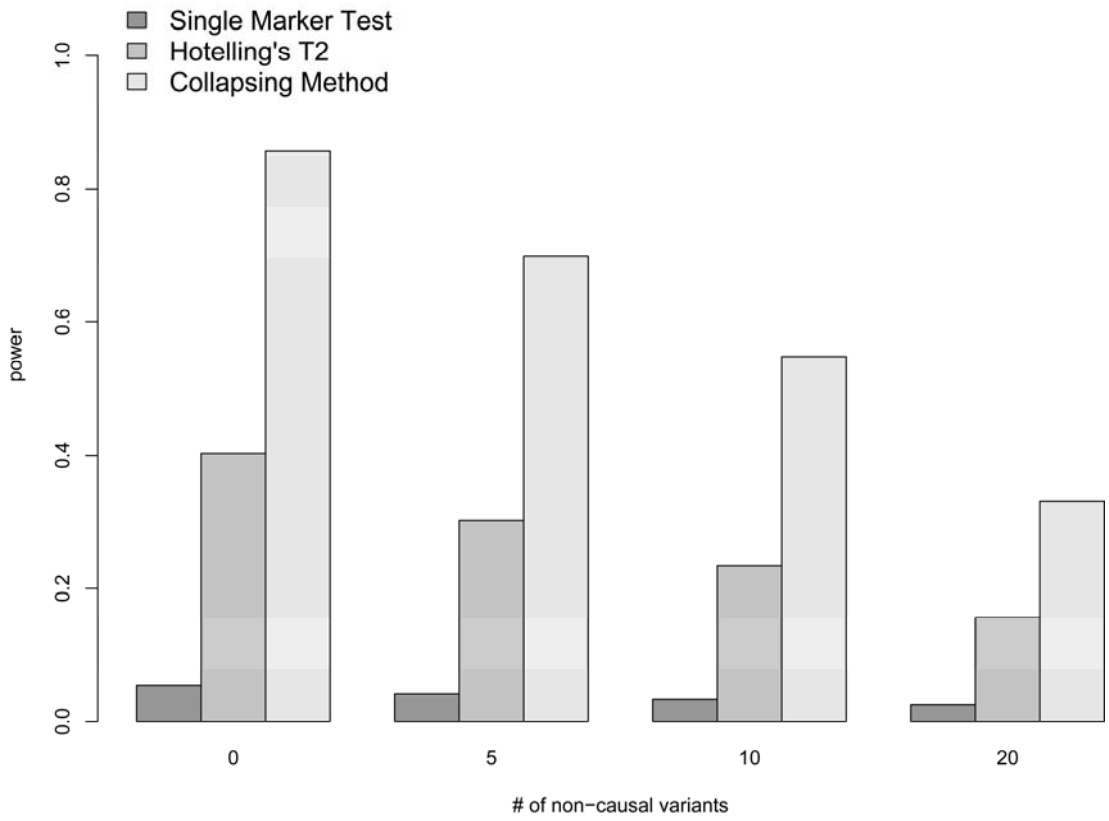

Figure S2. The Power to Detect an Association when Non-causal Rare Variants are Included in the Analysis, for the Single Marker Test, Hotelling's T^2 test, and the Collapsing Method

The power is calculated for 250 cases and 250 controls for a locus RR of 2.0 where the total causal variant frequency is 0.05 and there are 10 causal variants within the locus each with equal allele frequency and 5, 10 or 20 non-causal variants each with allele frequency of 0.005 are included in the analysis.

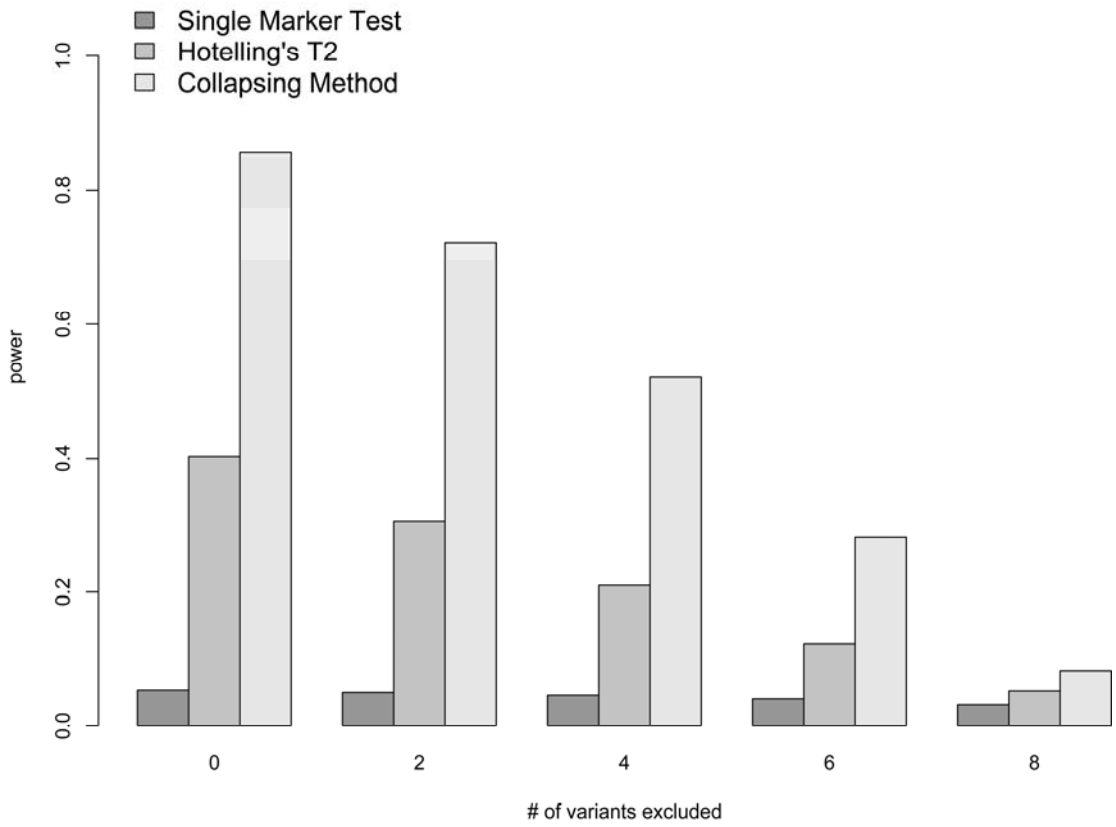

Figure S3. The Power to Detect an Association when Causal Rare Variants are Excluded from the Analysis for the Single Marker test, Hotelling's T^2 and Collapsing Method

The power is calculated for 250 cases and 250 controls for a locus RR of 2.0 where the total variant frequency is 0.05 and there are 10 causal variants within the locus each with equal allele frequency and 2, 4, 6 or 8 causal variants are excluded from the analysis.

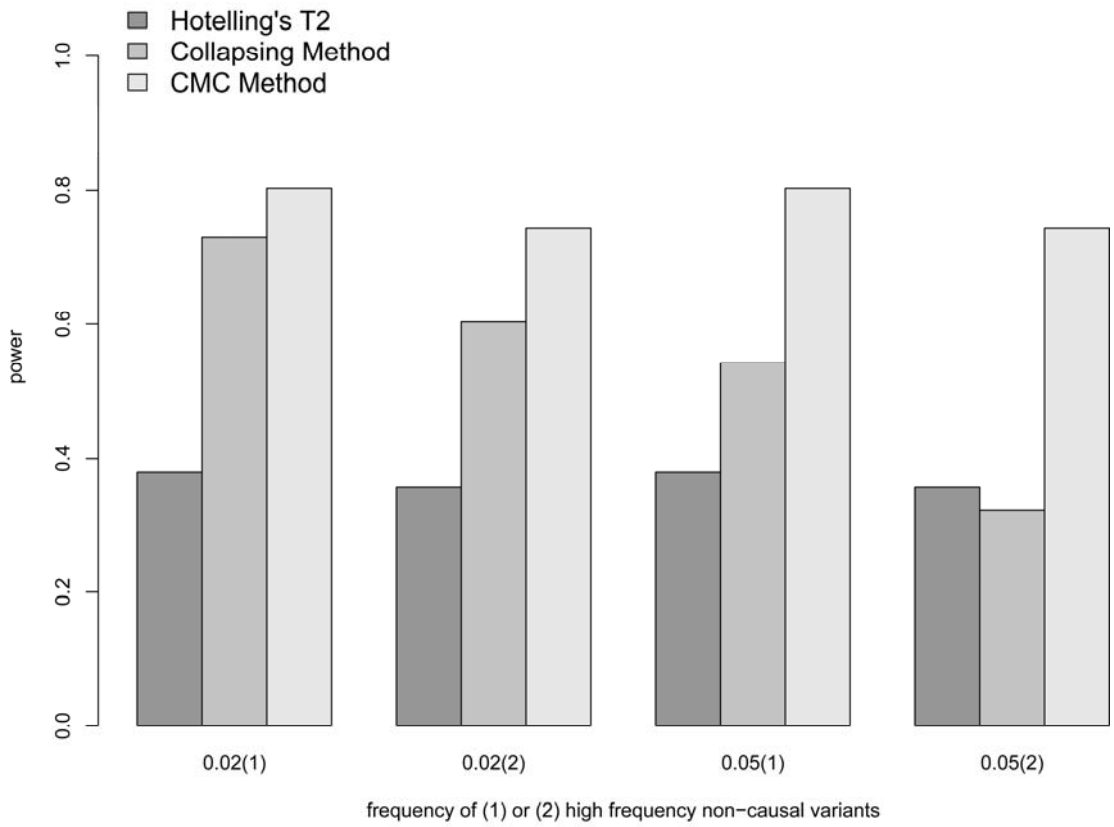

Figure S4. The Power to Detect an Association when Non-causal High Frequency Variants are Included in the Analysis for Hotelling's T^2, Collapsing Method, and the CMC Method.

The power is calculated for 250 cases and 250 controls for a locus RR of 2.0 where the total variant frequency is 0.05 and there are 10 causal variants within the locus each with equal allele frequency and either one or two non-causal variants with allele frequency of 0.02 or 0.05 are included in the analysis.

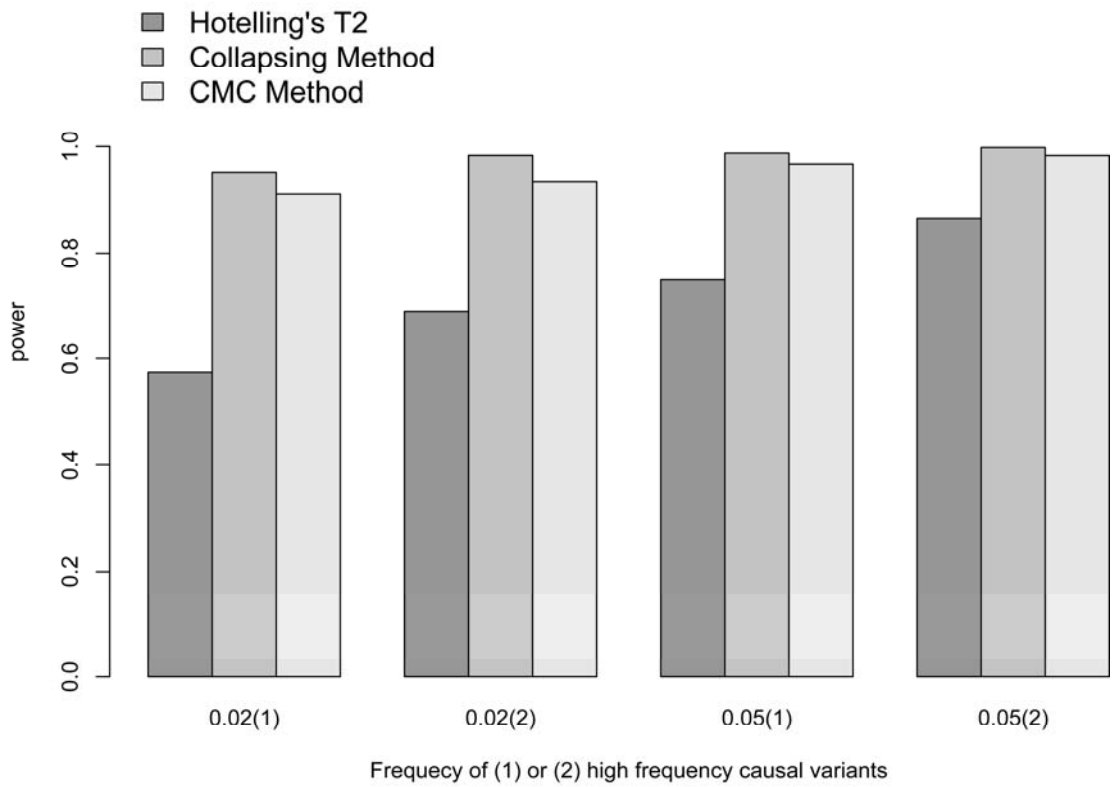

Figure S5. The Power to Detect an Association when Causal High Frequency Variants are Included in the Analysis for Hotelling's T^2, Collapsing Method, and the CMC Method.

The power is calculated for 250 cases and 250 controls for a locus RR of 2.0 where the total variant frequency is 0.05 and there are 10 causal variants within the locus each with equal allele frequency and either one or two causal variants with allele frequency of 0.02 or 0.05 are included in the analysis.