

Supplementary Information Inventory:

- Supplemental Experimental Procedure: Relates to Experimental Procedure. Contains experimental procedure that could not be fit into the main document.
- Supplemental Figure S1: Comparing approaches for picking SNPs, relates to Figure 2.
- Supplemental Figure S2: Accuracy when returning larger numbers of SNPs, relates to Figure 2.
- Supplemental Figure S3: Accuracy on highly stratified population, relates to Figure 2.
- Supplemental Table S1: Accuracy with no stratification, relates to Figure 2.
- Supplemental Table S2: Relationship between sample size and accuracy, relates to Figure 2.
- Data S1: Supplementary code and data, related to Experimental Procedure. A zip file containing code and simulated data used in our work.