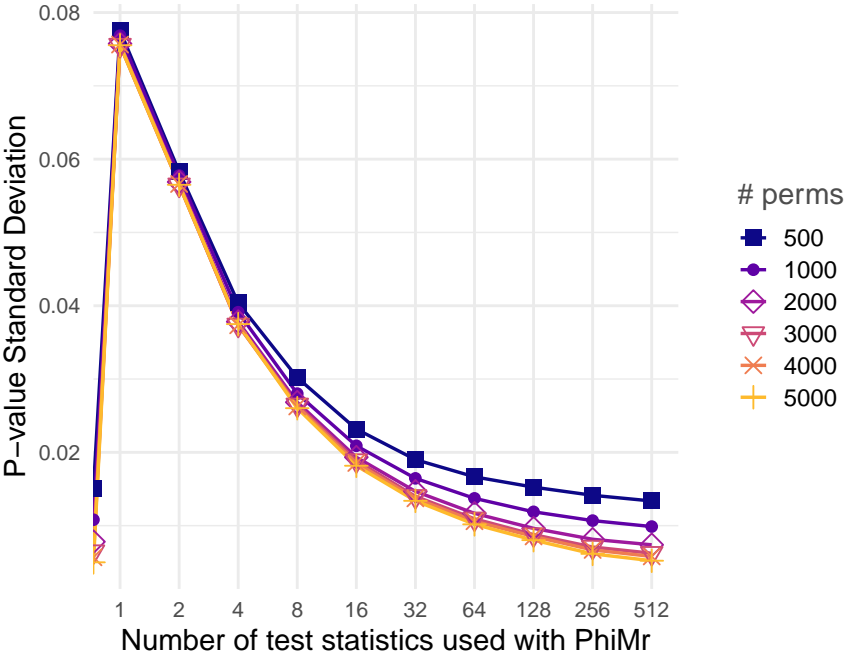


# Standard Deviation of AMKAT P-value on a Fixed Data Set

Simulated SNP set, 122-variable signal set with weakly-correlated components,  $p = 567$ ,  $n = 50$   
Multivariate normal errors with uncorrelated components

## As a function of the # of test statistics

Each point represents a sample of 500 P-values



(0 corresponds to testing without PhiMr filter)

## As a function of the # of permutation statistics

Each point represents a sample of 500 P-values

