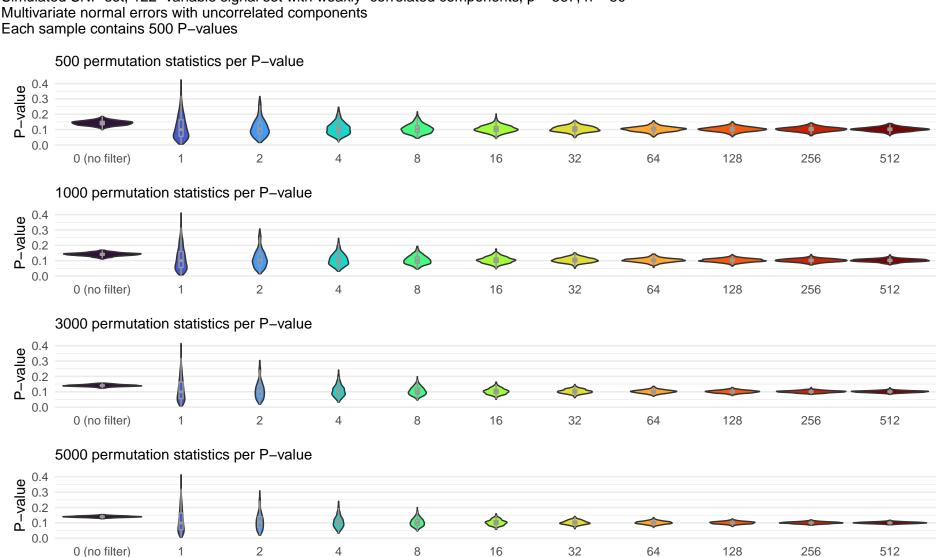# Distribution of AMKAT P−value on a Fixed Data Set

Simulated SNP set, 122−variable signal set with weakly−correlated components, p = 567, n = 50
Multivariate normal errors with uncorrelated components
Each sample contains 500 P−values

### 500 permutation statistics per P−value

### 1000 permutation statistics per P−value

### 3000 permutation statistics per P−value

### 5000 permutation statistics per P−value

**Test Statistics Used for P−value Estimate With PhiMr Filter**