

Density of test statistic under  $H_0$

$\alpha$  is the level (or size) of the test.

$p\text{-value} > \alpha$ , which implies  
that we cannot reject  $H_0$

Sum of areas =  $p\text{-value}$

sample-based) Test statistics  $S$

$\Phi_S^{-1}(\alpha/2)$

$\Phi_S^{-1}(1 - \alpha/2)$

-4

-2

0

2

4

Test statistic  $S$

