

WHAT IS THE PROBABILITY THAT
BROWNIAN MOTION HITS 2 BEFORE TIME 1?

$$\begin{aligned} P(T_2 < 1) &= P\left(\frac{1}{T_2} > 1\right) \\ &= 1 - \text{pgamma}\left(1, \frac{1}{2}, 2^2/2\right) = \underline{0.0455} \end{aligned}$$