2-4. A block of $m = 50$ kg rests on the edge of a horizontal platform, and the radius of the platform is $r = 3$ m. The angular motion of the platform is slowly increased so that the block's tangential acceleration is negligible. When the speed of the edge of the platform is $v = 2.2$ m/s, determine the probability that the block will slip off the platform. Assume the coefficient of static friction between the block and the platform follows a normal distribution $\mu_s \sim N(0.2, 0.02^2)$. Neglect the size of the block.

Solution: $p = 0.038$