



Holding the Lead

For some observers the question is, “Is this ever going to end?” but most sports fans want to know, “How is this going to end?” A team of researchers used a mathematical idea known as a random walk to model the way scoring leads grow and shrink over the course of a game in a competitive team sport. They found that the likelihood that a lead of L



points is “safe” (that is, will not be eliminated) with t seconds left in the game can be calculated with expressions involving exponential and trigonometric functions. This formula predicts that in basketball, a lead of 10 points with about eight minutes remaining, or of 18 points at half-time, is 90% safe.

Listen Up!



MM/120.s



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