

Contributions to the realisation of a mathematical model of basketball shooting

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Abstract

In the game of basketball shooting goals is the technical component through which the purpose of the game, scoring points, is accomplished. Taking into account its importance, shooting is studied from the point of view of many scientific disciplines. Starting from the premise that the ball trajectory after shooting is identical to the movement of a projectile launched obliquely, the paper aims to develop a mathematical model of shooting, taking into account the launching angle, speed, flight, and the drop angle of the ball in the basket. In this approach an abstraction of the influence of air resistance on the ball was made. The mathematical model described can be used to study the dynamics parameters of shooting with the aim of deepening knowledge and improving the mechanism of the implementation of this process.

Key words: basketball, set shoot, trajectory equation.