

Paddle Angle and Ball Spin in Table Tennis

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Our group in the KVIS-ISB Student Research Collaboration Program investigated how the impact angle of a table tennis paddle affected the resulting spin of the ball. A table tennis ball struck a paddle at angles ranging from 10° to 80° . Using high-speed video analysis, the angular velocity was measured for each impact angle. It was found that the sine of the impact angle was proportional to the angular velocity of the ball after impact. The proportionality constant was found to be 120 radians per second, in agreement with the theoretical value of 113 ± 10 radians per second. This was our first experience of research collaboration outside our schools and our first experience of the rigor of the research and publishing process. We believe that the program has improved our abilities in problem-solving, critical thinking, collaboration, and experimental design.

NOTE

KVIS-ISB Student Research Collaboration Program Presentation

Kamnoetvidya Science Academy (KVIS) and International School Bangkok (ISB) have established the KVIS-ISB Student Research Collaboration (SRC) Program to develop students' skills in experimental research and the journal review and publishing process. This presentation describes the published work of one group of program participants, along with their perspectives on the KVIS-ISB SRC Program.

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