

Yeadon, M.R. 1993. Twisting techniques used by competitive divers. *Journal of Sports Sciences* 11, 4, 337-342.

At the 1991 World Student Games, eight reverse $1\frac{1}{2}$ somersault dives with $2\frac{1}{2}$ twists were recorded during the men's finals in the 1m and 3m springboard diving competitions using two video cameras. Angles describing body configuration were determined from video data and were input, together with initial orientation angle values and angular momentum components, into a computer simulation model of aerial movement in order to predict body orientation in space. Mean absolute deviations between simulation and video after the completion of one twist were 0.02 rev for somersault, 2.3° for tilt and 0.04 rev for twist. Contributions to the tilt angle after one twist were used as measures of the twisting potential of various techniques and were determined using simulations based on modifications of the video data. Seven of the eight competitors produced the majority of the tilt using aerial techniques which were predominantly asymmetrical movements of the arms and hips, although the mean contribution from contact techniques amounted to one-third of the total tilt.