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3D Dynamic Modelling and Simulation of a Golf Drive

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Abstract: *A validated dynamic model of a golf driver can be an invaluable asset in designing a well performing club. We present a model for simulating the golf drive that includes experimentally-measured inputs from actual golfers, and a three-dimensional (3D) flexible shaft model based on Rayleigh beam theory. The result is a computationally-efficient dynamic model that includes the "signature" of an individual's swing, and the bending and torsion that is so important to the performance of the club. Good agreement was obtained between the simulated and experimental results.*

Keywords: Golf drive simulation; Computer simulation; Dynamic modelling; Experimental validation; Flexible beam; 3D model

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