

Cambridge Physics Centre

The flight of the Boomerang

Professor Mark Warner of the Cavendish Laboratory, University of Cambridge

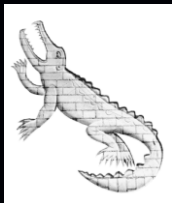
The boomerang depends on three fundamental physical phenomena to fly and return: central forces producing circular motion; the flow of fluid over an aerofoil producing lift; and torques on a spinning object producing precession, that is, re-direction of the axis of rotation. The lift force holds the boomerang aloft, it accelerates it towards the centre of its circular motion and it provides the torque for precession. The boomerang also depends on a miracle: the rate of motion in a circular orbit has to agree with the rate of precession of its axis. Prof Warner will explain the three phenomena and the miracle with the aid of demonstrations and (a very few) equations. Indoor boomerangs will be flown - and hopefully return!

6pm on Thursday 15th March 2012 in the Pippard Lecture Theatre in the Cavendish Laboratory, JJ Thomson Avenue, Cambridge CB3 0HE

No need to book, just turn up

<http://www.phy.cam.ac.uk/contact/directions.php>

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