

# Download Radial Component Of Acceleration

The component of angular acceleration tangential to the circular path is the tangential component. For instance, in a discus throw competition, when you fling the disc after one or two rotations, the disc travels along the tangential path of your hand's circular rotations due to the tangential component. Radial Acceleration The velocity of a moving object can be changed by changing its speed or direction. If we consider an object which is moved with non-uniform velocity; for example, a moving train, its velocity is increasing continuously and after sometime it starts to move with constant velocity. Radial component of acceleration means component of resultant acceleration which is perpendicular to the instantaneous velocity and we can talk about this for motion along any general path (not necessarily for circular motion only). Since this component of acceleration is always directed along the radius of curvature of the trajectory that's why the name radial acceleration is given. Nothing wrong mathematically indeed, just noticing that when many intro physics book talk/introduce the concepts of centripetal and tangential accelerations as vector components of the acceleration vector they implicitly use the local intrinsic unit vectors and intrinsic basis  $\{\mathbf{T}, \mathbf{N}, \mathbf{B}\}$  to express them and not other coordinate systems like

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