

20.1: Introduction

The general motion of a rigid body of mass m consists of a translation of the center of mass with velocity \vec{V}_{cm} and a rotation about the center of mass with all elements of the rigid body rotating with the same angular velocity $\vec{\omega}_{cm}$. We prove this result in Appendix A. Figure 20.1 shows the center of mass of a thrown rigid rod follows a parabolic trajectory while the rod rotates about the center of mass.

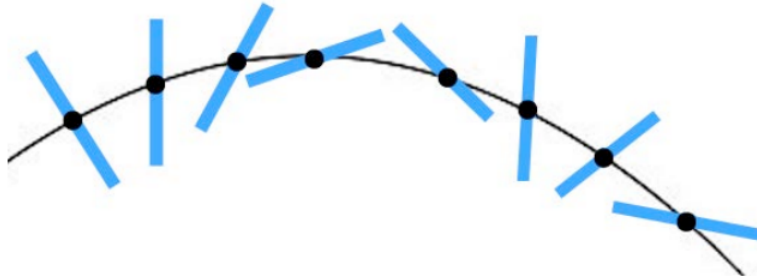


Figure 20.1 The center of mass of a thrown rigid rod follows a parabolic trajectory while the rod rotates about the center of mass.

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