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**Only Solid Spheres Admit a False Axis of Revolution**

Let  $K \subset \mathbb{R}^3$  be a convex body. A point  $p_0$  is a point of revolution for  $K$  if every section of  $K$  through  $p_0$  has an axis of symmetry that passes through  $p_0$ . In particular, every point that lies in an axis of revolution is a point of revolution. A line  $L \subset \mathbb{R}^3$  is a *false axis of revolution*, if every point of  $L$  is a point of revolution for  $K$  but  $L$  is not an axis of revolution. The purpose of this paper is to prove that only solid spheres admit a false axis of revolution.