

Title: Tilted boxes on inclined planes

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Abstract: We propose the study of a box placed on an inclined plane, with an initial tilt with respect to the plane. This is a paradigmatic example of the role played by friction as a link between translational and rotational motion. This example has two advantages over the usual example of a sphere (or cylinder) rolling down an inclined plane. First, it provides a good model for a much greater variety of "real-life" situations. Second, it exhibits a much richer structure in parameter space, even when the box starts from rest. (C) 2000 American Association of Physics Teachers.

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