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Drop impact on a hydrophobic elastic beam SEAN GART, KATIE NORRIS, DANIEL CHIQUE, SUNGHWAN JUNG, Department of Engineering Science and Mechanics, Virginia Tech — Plant surfaces found in nature often exhibit hydrophobic wetting properties; a particular example is the surface of leaves. Most leaves are compliant enough to survive while being impacted by rain droplets. Here, we investigate this leaf-drop system exhibiting a unique system of coupled elasticity and drop dynamics. By replacing the leaf with a thin piezoelectric cantilever beam, we further measure and harvest this drop kinetic energy as a workable model for an energy-harvester from rain drops.

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