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Tuning of a splash on elastic membranes RACHEL E. PEPPER, LAURENT COURBIN, HOWARD A. STONE, DEAS, Harvard University — We study the splash of liquid droplets on elastic substrates. In particular we focus on the case where the substrate is a thin polymeric film. We identify the transition between splashing and no-splashing as a function of the applied tension of the membrane and droplet radius. A simple model accounting for the additional energy stored in the deformable elastic sheet is developed and compared with experiment.

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