Abstract Submitted
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Falling flexible sheets SILAS ALBEN, Georgia Tech — We use inviscid simulations to study falling flexible sheets in the two-parameter space of sheet density and bending rigidity. The basic behavior is a repeated series of accelerations to a critical speed at which the sheet flexes, and rapidly decelerates, shedding large vortices. The maximum and average speeds of the sheet are closely related to the critical flutter speed. The sheet trajectories also show persistent circling, quasi-periodic flapping, and more complex repeated patterns.

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