

Title: Crumple mediated snap-through and post-buckling behavior of cylindrically bent sheets

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#### Abstract

Cylindrically bent sheets represent a common structural component in flight vessels. Asymmetric loading leading to different modes of buckling is common in these types of structures. While the plastic deformations which occur post-buckling have been well studied, we investigate the elastic, reversible buckling process which is mediated by localized regions of high elastic energy, or “crumples.”