

Abstract Submitted
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Dynamical Origami CHRISTOPHE JOSSERAND, ARNAUD ANTKOWIAK, BASILE AUDOLY, SÉBASTIEN NEUKIRCH, Institut D'Alembert, CNRS & UPMC, INSTITUT D'ALEMBERT TEAM — A drop falling on a thin elastic sheet is rapidly trapped after impact by self-folding of the sheet around the drop. This trapping process, due to capillary forces, occurs on the fast timescale of hydrophobic rebound. The resulting packed drop presents a complex three-dimensional shape, characteristic of the interplay between elasticity and capillarity (Py *et al.*, *Phys. Rev. Lett.* **98**, 2007). We study experimentally the encapsulation dynamics with high-speed video camera. A shape selection exhibited by the system is evidenced. The role played by the different parameters of impact (drop radius, impact velocity...) in the final shape of this “dynamical origami” is eventually discussed.

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