

Abstract Submitted
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Controlled Pattern Selection of Free Surface Waves CHUN-TI CHANG, SUSAN DANIEL, PAUL H. STEEN, Cornell University — In this experimental study, we investigate the resonance of surface waves subject to different geometric constraints. For liquid puddles with different footprints and depths, we experimentally probe and compare their dynamics of pattern selection. From the scientific perspective, the comparison relates resonance of sessile drops to Faraday waves. For technological development, the study provides guidelines for applications such as ordered self-assembly of nanoparticles, droplet transport, drop atomization, enhanced mixing, and suspension collection.

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