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Ejecta evolution during cone impact JEREMY MARSTON, IVAN VAKARELSKI, SIGURDUR THORODDSEN, King Abdullah University of Science and Technology — We present results from an experimental study of the impact of conical shaped bodies into a pool of liquid. By varying the cone angle, impact speed and liquid physical properties, we examine a broad parameter space and seek to find conditions when self-similarity can be observed during this phenomena. We use high-speed imaging to capture the early-time motion of the liquid ejecta which emanates from the tip of the cone and travels up along the cone surface. Surprisingly, we find that the detachment of the ejecta can be simply described by air entrainment relationships derived from coating experiments.

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