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Cutting, Splicing, and Kelvin Waves[1] MARTIN SCHEELER, DUSTIN KLECKNER, WILLIAM T.M. IRVINE, University of Chicago — Recent experimental advances have allowed us to create, visualize and track vortices of prescribed shape and topology in classical fluids. We study the effect of surgery (cutting and splicing) on the evolution of the geometry and topology of these vortex loops, with a particular focus on the wave-like excitations generated by these operations. We interpret the dynamics of these excitations and the role they play within the broader context of vortex evolution.

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