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Bifurcations of anisotropic rods and strips. TIAN YU, JAMES HANNA, Virginia Tech — Elastic strips with end constraints on position and orientation have a rich landscape of equilibria. This is a simple system in which complex results emerge from the competition between twist and writhe induced by global constraints. We compare experiments on strips of several widths with solutions of anisotropic Kirchhoff rod equations obtained by numerical continuation, and find that the latter naive model captures much of the bifurcation behavior of the real strips.

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