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Geometric singularities in the mechanics of strings and rods HARMEET SINGH, JAMES HANNA, Virginia Tech — We will discuss propagating geometric discontinuities in one-dimensional bodies, particularly those mediated by partial contact with obstacles that may serve as singular sources of momentum and energy. Invariance arguments and basic assumptions about contact interactions reveal counterintuitive behavior during pick-up, lay-down, impact, peeling, and other processes. Related phenomena can be found in string instruments, mooring lines, and many other systems.

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