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Diana Hubbard* (dianahub@umich.edu) and **Jordan Katz.** *A characterization of the products arising from site-specific recombination on certain DNA substrates.*

Following work of Buck, Flapan, Wong, and others, we model circular DNA (arising naturally in bacteria and mitochondria) as a topological knot in order to classify the possible products that can arise from site-specific recombination on substrates of a certain form. In particular, we show that all products of site-specific recombination on substrates of the topological form $T(2,n)\#C(2,r)$ (a connected sum of torus knots and twist knots) are contained in one of two families. (Received February 19, 2018)