1020-57-53   **Erica Flapan*** (`eflapan@pomona.edu`), Department of Mathematics, 610 N. College Ave.,
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2AZ, England. *A Model of DNA Knotting and Linking: Part II.*

We present a topological model that predicts which families of knots and links can be the products of site-specific recombination. We do this by describing the topology of how DNA knots and links are formed as a result of a single recombination event, or multiple rounds of (processive) recombination events, starting with substrate(s) consisting of an unknot, an unlink, or a $(2, n)$-torus knot or link. Our model relies on only three assumptions and we give biological evidence for each of these assumptions. This talk will present the topological argument for our model. Note this talk will be integrated with the talk of Dorothy Buck. (Received August 08, 2006)