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Adam Y He* (ayh8@cornell.edu) and **Erica L Flapan**. *A topological model of lasso proteins.*

The presence of topologically complex structures such as knots and links in proteins has received significant attention from both theoreticians and experimentalists. In this talk, we focus on lasso proteins, a more recently discovered class of proteins that have not been very well characterized from a topological perspective. These proteins consist of a closed loop pierced by some number of chain termini. This geometric complexity is believed to influence their stability and play a role in their physiological functions. We propose a topological model of these proteins that allow us to treat lassos like other topologically complex proteins. We then show that our model allows us to distinguish between known lasso structures. (Received February 19, 2018)