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Adam J. Giambrone* (giambro1@msu.edu). *Combinatorics of Link Diagrams and Volume Estimates*. Preliminary report.

In this talk, we will begin with a study of the combinatorics of A-adequate link diagrams whose associated all-A state graphs satisfy a certain two-edge loop condition. From this, we obtain a lower bound on the complexity of the all-A graph. By work of Futer, Kalfagianni, and Purcell, such links are usually hyperbolic and the complexity bound actually provides a lower bound on the volume of the link complement. This pairs nicely with work of Agol and D. Thurston to give two-sided bounds in terms of the twist number of the diagram. Finally, we express these bounds in terms of stable coefficients of the colored Jones polynomial. (Received August 24, 2013)