1023-57-1047   **David Futer*** (`dfuter@math.msu.edu`), **Efstratia Kalfagianni** (`kalfagia@math.msu.edu`) and **Jessica S. Purcell** (`jpurcell@math.utexas.edu`). *Volume, twist number, and Jones polynomial of hyperbolic links I.*

For a large family of knots and links, we prove that the twist number of a link diagram coarsely determines the volume of the link complement. In contrast with previous results of this type, our knots and links need not be alternating. Our lower bound on volume relies on a new theorem that estimates the change in volume under Dehn surgery. This is joint work with Effie Kalfagianni and Jessica Purcell. (Received September 24, 2006)