1023-57-1262   **Abhijit Champanerkar** and **Ilya Kofman*** (`ikofman@math.csi.cuny.edu`), Department of
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The Mahler measure of Jones polynomials and the twist-bracket polynomial.

For any link, the Mahler measure of the Jones polynomial converges under twisting to that of a certain multivariable polynomial which depends on the number of strands being twisted at each site. For two strands at each site, we get the twist-bracket polynomial P, which generalizes the Kauffman bracket. After normalizing P, we get a regular isotopy invariant for 2-strand block diagrams. As an application, we use P to show that any infinite sequence of distinct prime alternating links with cyclotomic Jones polynomials must have unbounded hyperbolic volume. (Received September 25, 2006)