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A Cheskidov and **M S Jolly*** (msjolly@indiana.edu), Department of Mathematics, Indiana University, Bloomington, IN 47405, and **E S Van Vleck**. *On a relation between Lyapunov exponents and the radius of analyticity.*

We present a rigorous estimate supporting one side of a relation proposed by Sigeti, [Phys. D, 82:136–153 (1995)] between global Lyapunov exponents and the radius of analyticity for chaotic attractors. A quantity related to the rate of volume distortion is shown to be bounded by an expression inversely proportional to the radius. This rate is numerically computed and compared to the latter expression through rigorous evaluation of the radius. The sharpness of this bound is tested on both the Lorenz and Kuramoto-Sivashinsky equations. (Received February 02, 2009)