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Jerrold R. Griggs* (griggs@math.sc.edu), Department of Mathematics, University of South Carolina, Columbia, SC 29208, and **Wei-Tian Li**. *The Lubell function of a family of subsets*. Preliminary report.

Let F be a family of subsets of the set $[n] = \{1, \dots, n\}$. The Lubell function of F is the expected number of times a random full (maximal) chain of subsets of $[n]$ intersects F . Using the Lubell function is sometimes very useful for obtaining information about $|F|$, particularly when F is a family with a forbidden subposet. We present new applications of this approach. (Received January 18, 2012)