1133-05-333 **Shuliang Bai*** (sbai@math.sc.edu), Department of Mathematics LeConte College 1, 1523 Greene Street, University of South Carolina, Columbia, SC 29208, and **Linyuan Lu** (lu@math.sc.edu), Department of Mathematics LeConte College 1, 1523 Greene Street, University of South Carolina, Columbia, SC 29208. *A Bound on the Spectral Radius of Hypergraphs with e Edges.*

For $r \geq 3$, let $f_r\colon [0,\infty) \to [1,\infty)$ be the unique analytic function such that $f_r(\binom{k}{r}) = \binom{k-1}{r-1}$ for any integer $k \geq r-1$. We prove that the spectral radius of an r-uniform hypergraph H with e edges is at most $f_r(e)$. The equality holds if and only if $e = \binom{k}{r}$ and H is the union of a complete r-uniform hypergraph K_k^r and some possible isolated vertices. This result generalizes the classical Stanley's theorem on graphs. (Received July 31, 2017)