

1136-13-268

Selvi Kara Beyarslan* (selvi@southalabama.edu), 411 University Boulevard North, Mobile, AL 36688-0002, and **Arindam Banerjee** and **Tai Huy Ha**. *Bounding Regularity of Powers Edge Ideals via Local Conditions*. Preliminary report.

Let $I(G)$ be the edge ideal of a graph G . It is known that local conditions on the regularity of $I(G) : x$, for all vertices of x , result with a global statement on the regularity of G . In this talk, we focus on using these local conditions to obtain bounds for the asymptotic linear function $\text{reg } I(G)^s$ for $s \geq 1$. (Received January 18, 2018)