1015-13-94   **Adam Van Tuyl*** (`avantuyl@sleet.lakeheadu.ca`), Dept. of Mathematical Sciences, Lakehead University, Thunder Bay, ON P7B 5E1, Canada, and **Huy Tai Ha**. *Resolutions of Edge and Facet Ideals.*

Let Δ be a simplicial complex on $V = \{x_1, \ldots, x_n\}$. If $\mathcal{F}(\Delta) = \{F_1, \ldots, F_t\}$ denotes the facets (maximal faces) of Δ, then we can associate to Δ a monomial ideal $\mathcal{I}(\Delta) = (\{\prod_{x \in F} x \mid F \in \mathcal{F}(\Delta)\})$ in the polynomial ring $k[x_1, \ldots, x_n]$. The ideal $\mathcal{I}(\Delta)$, which is called the facet ideal of Δ, is an alternative way to associate to a simplicial complex a monomial ideal (the other being the well-known Stanley-Reisner correspondence). Of particular interest is the case that Δ is finite simple graph G. In this case $\mathcal{I}(\Delta) = \mathcal{I}(G)$ is called the edge ideal of G. In this talk I will discuss a method to study the minimal free resolutions of facet ideals based upon the notion of a splittable ideal first introduced by Eliahou and Kervaire. (Received January 28, 2006)

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