1067-05-2068 **Michael Ferrara**, **Michael Jacobson**, **Kevin Milans**, **Craig Tennenhouse** and **Paul S Wenger*** (paul.wenger@ucdenver.edu), UCD Department of Mathematics, Campus Box 170, P.O. Box 173364, Denver, CO 80217. *Saturation Numbers for Families of Subdivisions.*

A graph G is $\mathcal{F}$*-saturated* for a family of graphs $\mathcal{F}$ if G contains no member of $\mathcal{F}$ as a subgraph, but $G + uv$ contains some member of $\mathcal{F}$ for every uv in $\overline{G}$. The minimum number of edges in an $\mathcal{F}$-saturated graph of order n is denoted $\mathrm{sat}(n, \mathcal{F})$. A *subdivision* of a graph H, is a graph G obtained from H by replacing the edges of H with internally disjoint paths of arbitrary length. We let $\mathcal{S}(H)$ denote the family of subdivisions of H, including H itself.

In this talk, we consider $\mathrm{sat}(n, \mathcal{S}(H))$ when H is a cycle or complete graph. We determine $\mathrm{sat}(n, \mathcal{S}(C_t))$ asymptotically and provide upper bounds on $\mathrm{sat}(n, \mathcal{S}(K_t))$. We also show that $\mathrm{sat}(n, \mathcal{S}(K_5)) = \lceil \frac{3n+4}{2} \rceil$, providing an interesting contrast to a 1935 result of Wagner, who showed that edge-maximal graphs without a K_5-minor have at least $\frac{11n}{6}$ edges. (Received September 22, 2010)