1067-54-633 **Teresita Ramirez-Rosas*** (`ramirezt@gvsu.edu`), GVSU, 1 Campus Dr, A-2-178 MAK, Allendale, MI 49401. *A lower bound for the trisecants of a knot.* Preliminary report.

Let K be a polygonal knot. A triple abc is a *trisecant* of K if a, b and c are points in K, no two of which lie on a common edge of K, that are collinear, in this order, in $\mathbb{R}^3$.

In 1933, Erika Pannwitz proved that each point of K is the starting point of at least κ trisecants for K, where κ is the necessary number of boundary singularities for a disk in $\mathbb{R}^3$ bounded by K.

Fix $x \in K$ and let t_x denote the number of trisecants having x as an end point. We have show $t_x \geq \frac{2cr(K)+1}{3}$, where $cr(K)$ is the minimal crossing number of K. If we let x appear not only as an end point but also as a middle point in the trisecant, we have conjectured that $t_x \geq cr(K)$. In this talk, we will present our progress towards proving this conjecture. (Received September 12, 2010)