1163-58-1452 **John D Ross***, SU Box 7371, 1001 E. University Avenue, Georgetown, TX 78626. *On curves that generate symmetric λ-hypersurfaces.*

This talk showcases some recent work on discovering hypersurfaces $\Sigma^n \subseteq \mathbb{R}^{n+1}$ that satisfy a mean curvature condition $H = \frac{1}{2}\vec{x} \cdot \vec{n} + \lambda$. Such surfaces, named λ-hypersurfaces, are natural generalizations of mean curvature flow self-shrinkers and act as critical points for the Gaussian surface area. It turns out that rotationally symmetric λ-hypersurfaces can be generated by a planar curve that satisfies a natural system of ODEs. Thus, new λ-hypersurfaces can be discovered by understanding solutions to the ODE system. We examine the system and highlight some strategies towards finding solutions. (Received September 15, 2020)