

1094-30-333

**Vyron Sarantis Vellis\*** (vellis1@illinois.edu), 1409 West Green Street, Urbana, IL 61801,  
and **Jang-Mei Wu**. *Quasisymmetric Spheres constructed over Quasidisks.*

In this talk we will provide some concrete examples of quasispheres and quasisymmetric spheres. We present two different constructions of surfaces in  $\mathbb{R}^3$  constructed over planar quasidisks  $\Omega$ . In the first construction, the surface is the graph of a function of  $\text{dist}(\cdot, \partial\Omega)$ . In the second, the level sets of the height of the surface are images of  $\{r\mathbb{S}^1\}_{r<1}$  under a quasiconformal function that maps the unit disk onto  $\Omega$ .

We examine the properties of the quasidisks and that of the height functions under which these surfaces are either quasispheres or quasisymmetric equivalent to  $\mathbb{S}^2$ . (Joint work with J.-M. Wu). (Received August 27, 2013)