1100-11-329 **Katherine Thompson*** (kthompson0721@gmail.com). *Positive Definite Quaternary Quadratic Forms Over* $\mathbb{Q}(\sqrt{5})$.

In this talk, we will describe how to use the theory of local densities (developed by Siegel) and Hilbert modular forms to provide proofs of universality and almost-universality of quaternary positive definite quadratic forms over $\mathbb{Q}(\sqrt{5})$. (Received February 10, 2014)