1116-VN-553 **Beth Romano*** (romanob@bc.edu). *The Local Langlands Correspondence: New Examples for Small Residue Characteristic.*

The structure of reductive p-adic groups arises from the interaction of Euclidean geometry and the arithmetic of p-adic fields. Reeder and Yu have drawn upon this interaction to construct certain "epipelagic" representations using Geometric Invariant Theory (GIT). In recent work, Jessica Fintzen and I have built on their methods to find new supercuspidal representations of p-adic groups when p is small. For each of these representations, the Local Langlands Correspondence predicts the existence of a corresponding field extension of $\mathbb{Q}_p$, whose Galois theory reflects the structure of the representation. In my talk, I will give explicit examples of representations and corresponding field extensions for the group G_2. (Received September 06, 2015)