

**Speaker:** Elizabeth Milicevic

**Title:** Alcove Walks in Affine Flags and Matrix Coefficients

**Abstract:** Flag varieties are often studied by decomposing them into orbits of various special subgroups. This principle is also fruitful in the case of the affine flag variety, which is a quotient of a reductive algebraic group over a field with a discrete valuation. In this talk, we will explain a combinatorial tool for visualizing the unipotent orbits inside the complete affine flag variety, originally due to Parkinson, Ram, and C. Schwer, now available in much greater generality via joint work with Naqvi, P. Schwer, and Thomas. We will then discuss an application of this alcove walk model to joint work with Brubaker on computing matrix coefficients of orbital integrals.