COLLOQUIUM

Title: Representations of General Linear Groups and Their Subgroups

Professor Dr. Dubravka Ban (SIUC),

11-5-26

Neckers 156 - Time: 3:30-4:30 pm

Abstract: General linear groups are prototypical examples of reductive groups, and in this talk, we will use them to illustrate some approaches in representation theory that can be applied to a broader class of reductive groups.
Let F be a finite extension of the field of p-adic numbers, and let G=GL(n,F). We will begin by discussing some algebraic properties of F, including the existence of infinitely many finite abelian extensions of F. Next, we will explore normal subgroups H of G of finite index. We will explain how they correspond, via local class field theory, to finite abelian extensions of F. Finally, we will discuss smooth representations of p-adic groups, focusing in particular on the restriction of representations from G to H.