

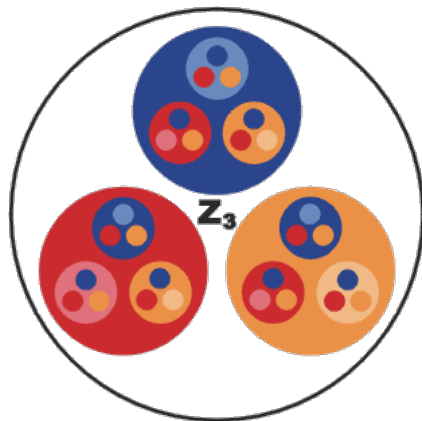


Departmental Seminar Series presents:

**Michael Knapp**

Loyola University Maryland  
Mathematics and Statistics Department  
September 27, 3:00pm, Cohn Hall 133

***Diagonal Forms Over the  $p$ -Adic Numbers***



**ABSTRACT**

In this talk, we'll study conditions which guarantee that a diagonal homogeneous polynomial has a zero over a field of  $p$ -adic numbers. I'll begin by giving an overview of what the  $p$ -adic numbers are and how they are constructed, mentioning in particular some properties of  $p$ -adic numbers which differ from those of the real numbers. Then I'll talk about homogeneous polynomials over the  $p$ -adics and present some theorems. I may outline some proofs, but in general this presentation will focus on ideas rather than technical details.

*This talk will be accessible to Juniors and Seniors.*

Refreshments will be served