

Department of Mathematics
University of Oklahoma

Karcher Special Lecture
Tuesday, April 14, 2009
4:00 PM in PHSC 1105
Tea at 3:30 PM in PHSC 424

Title: *Picard-Vessiot extensions with specified Galois group*
Speaker: *Lourdes Juan, Texas Tech University*

Abstract:

In joint work with Ted Chinburg and Andy Magid we address the problem of recognizing a Picard-Vessiot extension E of a differential field F from weaker information than the structure of E as a differential field. Our work includes a differential counterpart of the normal basis theorem in polynomial Galois theory and the construction of an invariant that depends on the differential Galois group of the extension. I will present the main results and some examples.