Research in Mathematics:
Galois Modules and
Ramification Theory

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As an undergraduate in 1980 and 1981 at Washington University in St Louis, Kevin Keating was on the Putnam Mathematical Competition winning team. He received his Ph.D from Harvard in 1987 and is currently Professor of Mathematics at the University of Florida.

Abstract

Let K be a local field and let L/K be a finite totally ramified Galois extension. The ramification breaks of $G = \mathrm{Gal}(L/K)$ measure how close certain elements of G are to the identity. In certain "degenerate" cases the number of ramification breaks is less than one would expect based on the order of G. I will consider the problem of finding replacements for the missing ramification breaks in terms of distances between elements of various group rings of G. This is joint work with Griff Elder, and builds on the work of Byott-Elder.

Friday Nov 6th at 2:30 PM in DSC 254