

Analysis Seminar Thursday September 19, 2013

John Duncan, UA

Title: Which algebras are primitive?

Abstract: An algebra is primitive if it has a faithful irreducible representation. Primitive algebras are fundamental building blocks for semi-simple algebras. We'll begin with a historical survey of the growing list of examples of primitive algebras (in the setting of pure algebra, Banach algebras, and C^* -algebras). We'll then look at the interesting family of inverse semigroups called McAlister monoids, and consider various algebras defined over McAlister monoids (up to C^* -algebras). In particular, we'll give some examples of such algebras where primitivity is undecidable in the framework of ZFC.