ALGEBRA SEMINAR

The l-modular representations of General Linear groups over a finite local ring of length two.

By

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Abstract: The representation theory of finite groups has a long history, going back to the 19th century and earlier. In this talk, we will be focusing on only part of that story: the study of blocks and their application to the study of representations of specific groups. We will start with the basic definitions and some of the different techniques used in block theory - sometimes ring theoretic, sometimes module theoretic. With this in mind, we will apply such tools to study the l-modular representation of the following groups: GL_n(Z/p^2Z) and GL_n(Fp[t]/t^2). We will show that the l-modular representations of those two groups are the same by proving that the group algebras are isomorphic.

Date: Wednesday, May 22, 2024
Time: 13:30
Place: SA141 - Mathematics Seminar Room