ALGEBRA SEMINAR

Unital biinvariant bases in source algebras of blocks-II

By

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Abstract: Every finite dimensional algebra over an infinite field has a basis consisting of units. If the algebra is interior for a finite p-group D, we say that it is a bipermutation D-algebra if there is a basis that is invariant under left and right D-multiplication. Such a basis may be viewed as a (D,D)-biset, and if the basis can be chosen to consist of units, it (almost) determines a saturated fusion system on D.

This talk, based on joint work with Laurence Barker, will have two goals: To explain the material in the above paragraph in greater detail, and to show how certain structural properties of an algebra are equivalent to the existence of a unital biinvariant basis. The ultimate goal--applying these results to the source algebra of a block--will be outlined at the end, time permitting.

Date: October 23, 2019 Wednesday
Time: 10:40 – 11:50
Place: SA141 Mathematics Seminar Room

* Tea and cookies will be served before the talk. All are most cordially invited.