



ALGEBRA SEMINAR

Subcharacter algebra of a finite group and its deformations

By

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Abstract: Strange structures associated with a finite group have been very useful in proving results that otherwise seem out of reach. Subcharacter algebra of a finite group G , formed by equipping subgroups of $G \times G$ with one-dimensional characters is yet another instance of such structures. It provides a playground to embed and study the algebra of fibred bisets of a finite group G in a setting where the multiplication is much simpler. Using this ability, we shall show how to obtain deformations of the more complicated algebra. Over a field of characteristic zero, in the particular case where G is abelian we shall also prove that the deformation of the subcharacter algebra afforded by the inclusion of natural numbers, which corresponds to the algebra of fibred bisets is not semisimple. This work is partly joint with L. Barker.

Date: Monday November 6, 2023

Time: 10:30

Place: SA141 - Mathematics Seminar Room