

## ALGEBRA SEMINAR

## **Pointed p-groups**

By

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**Abstract:** Through Puig's notion of a fusion system, p-local finite group theory has been nicely abstracted in a purely group theoretic way. Yet a major element of Puig's inspiration appears to have been the Frobenius Normal p-Complement Theorem which, to date, has only been proved by directly or indirectly linearizing from the group to the group algebra. When we apply the theory of fusion systems to the p-locally linearized scenario, we mean, block theory, we find that the fusion system of a block is a coarse version of another category that was considered by Puig: the category of pointed p-groups. We classify the pointed p-groups and examine their inclusion relation. This is equivalent to describing some bimodule structures that can be imposed on the block algebra or on the group algebra.

Date: Monday, 21 October 2024 <u>Time:</u> 11:00 – 12:00 <u>Place:</u> SA141 - Mathematics Seminar Room