

ALGEBRA SEMINARS

An introduction to fusion systems, Alperin's Weight Conjecture, Linckelmann's Gluing Conjecture, part 2.

By

Laurence Barker

(Bilkent)

Abstract: We shall introduce the fusion system of a block, constructing it as a subquotient category of the transporter category of the G-poset of Brauer pairs. We shall use it to express Puig's reformulation of Alperin's Conjecture, which is a p-local assertion in Puig's strong sense. Examples show that the fusion system cannot be the sole p-local invariant involved. Like a New Year tree, the fusion system has to be decorated. The appropriate decorations consist of twists of the automorphism groups at some special objects called the centric objects. Linckelmann's Gluing Conjecture says that those twists can be unified, realized as a single twist of the category algebra of the centric part of the fusion system.

Date: November 19, 2018

Time: 10:40 – 11:50

Place: SA141 Mathematics Seminar Room

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