ALGEBRA SEMINAR

Endopermutation source stable equivalences, slash functors, and functorial equivalences

By

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Abstract: We will first review the notions of Brauer-friendly modules and slash functors defined and constructed by Erwan Biland. These are generalisations of p-permutation modules and Brauer functors, respectively. Let kGb and kHc be two block algebras having the same defect group P and the same fusion systems. We show that if a bimodule M having an endopermutation source induces a stable equivalence of Morita type between kGb and kHc, then for any nontrivial subgroup Q of P, the associated slashed module M_Q induces a Morita equivalence between local blocks. This can be seen as an analogue of a similar result in terms of p-permutation equivalences by Boltje and Perepelitsky and also as a converse of gluing result by Linckelmann. As an application, we show that Morita (resp. stable) equivalences with endopermutation source imply functorial (resp. stable functorial) equivalences defined recently by Bouc and Yılmaz.

Date: Wednesday, February 28, 2024
Time: 13:30
Place: ZOOM

To request the event link, please send a message to d.yilmaz@bilkent.edu.tr