



Main Talks

IV Seminar on Categories and Applications

Bellaterra, 6 to 9 of June of 2007

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Finitely accessible and exactly definable categories: duality and symmetry

Abstract: Any exactly definable category \mathcal{E} has a symmetric category $s(\mathcal{E})$ which is also exactly definable. Pairs of symmetric categories generalize the case of the module categories $Mod(R)$ and $Mod(R^{op})$, R being a ring possibly without identity.

An application of symmetric categories is given to the following problem. Given a pure semisimple finitely accessible category \mathcal{C} with products, find conditions for \mathcal{C} to be of locally finite representation type. A criterion analogous to Herzog's test for finite representation type holds also in this general frame. As a consequence, any left pure semisimple ring R with enough idempotents which has a self-duality is a ring of locally finite representation type.

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