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ABSTRACTS 1.2

FOR RESEARCH IN MATHEMATICAL SCIENCES

GABRIELLA D'ESTE University of Milan

Asymmetries for cotilting bimodules (25-30)

We first describe the different behaviour of the two underlying modules of a cotilting bimodule with respect to injective envelopes, their possible bimodule structures, torsion and torsion-free modules (which show up in the socalled "Cotilting Theorems"). As we shall see, almost all symmetries between left and right modules seem to vanish also for the cotilting bimodules more close to Morita bimodules, that is for the "hereditary" cotilting bimodules studied by Mantese (F. Mantese, Hereditary cotilting modules, J. Algebra 238 (2001) 462- 478) .To see this, it suffices to use finite dimemsional bimodules defined over algebras of finite representation type. Finally, we describe why at least some reflexive modules (with respect to an arbitrary bimodules) are easy to describe.