

Radicals and principal functors of module categories

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The most important types of functors for module categories are the functors Hom (covariant H and contravariant H') and the functor of tensor multiplication (T). Every such functor is accompanied by a set of classes of modules with different properties. These classes in their turn determine a set of preradicals (of special types) of module categories: radicals, torsions etc.

The investigated questions:

- 1) properties of preradicals associated to principal functors;
- 2) relations between associated preradicals for every functor H , H' and T ;
- 3) conditions of coincidence of some "near" preradicals;
- 4) comparison of studied cases (H , H' and T): similitude and duality.