A SURVEY OF INTEGRAL REPRESENTATION THEORY[1]

BY IRVING REINER

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1. Introduction. Notation and definitions. First of all I wish to acknowledge with thanks the many helpful conversations I have had with Professors Olga Taussky, Peter Roquette and Hans Zassenhaus, when I first began studying the subject of integral representations.

Historically, the subject received its main impetus from two branches of algebra. One branch is algebraic number theory, especially that part concerned with ideal theory; and the other is matrix theory, mainly that portion dealing with matrix representations of associative algebras. Methods of homological algebra have played an increasingly important role in the subject in recent years.

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