

1136-16-108

**Alberto Facchini\*** ([facchini@math.unipd.it](mailto:facchini@math.unipd.it)), Dipartimento di Matematica, Università di Padova, Via Trieste 63, I-35121 Padova, Italy. *Factorizations of ideals in noncommutative rings similar to factorizations of ideals in commutative Dedekind domains.*

Dedekind domains were one of the propulsive forces, one of the propulsive ideas, at the origins of the study of rings: there is no uniqueness of factorization for non-zero elements, but there is uniqueness of factorization for non-zero ideals. Well, ... for every non-zero ideal  $I$  in a Dedekind domain  $R$ , the module  $R/I$  is direct sum of finitely many uniserial  $R$ -modules, and this seems to be the motivation because of which Dedekind domains have such a good behavior as far as product decompositions of ideals is concerned. Thus we have studied the right ideals  $I$  in a (non-commutative) ring  $R$  for which the right  $R$ -module  $R/I$  is a direct sum of finitely many uniserial right  $R$ -modules. For such a right ideal  $I$ , there is a product decomposition of  $I$ , which is unique ... (Received January 06, 2018)