

1046-16-1580

**Dolors Herbera\*** (dolors@mat.uab.cat), Departament de Matemàtiques, Universitat Autònoma de Barcelona, E-08193 Bellaterra, Barcelona, Spain, and **Pavel Prihoda**. *Big Projective Modules over Noetherian Semilocal Rings*.

Let  $R$  be a ring. The set  $V^*(R)$  of isomorphism classes of countably generated projective right  $R$ -modules has a structure of commutative monoid with the sum induced by the direct sum of countably generated projective modules. For example, if  $D_1, \dots, D_k$  denote division rings then for a semisimple artinian ring  $M_{n_1}(D_1) \times \dots \times M_{n_k}(D_k)$  such monoid is isomorphic to  $(\mathbb{N}^*)^k$ , where  $\mathbb{N}^* = \mathbb{N} \cup \{\infty\}$ .

Let  $R$  be a semilocal ring, i.e. a ring that is semisimple modulo its Jacobson radical. If  $R/J(R) \cong M_{n_1}(D_1) \times \dots \times M_{n_k}(D_k)$  then, a recent result of P. Prihoda, implies that  $V^*(R)$  is isomorphic to a submonoid of  $(\mathbb{N}^*)^k$ . In this talk we shall present a characterization of such monoids when  $R$  is, in addition, a (two-sided) noetherian ring. (Received September 16, 2008)