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Alessio Caminata*, Dipartimento di Matematica, Università di Genova, via Dodecaneso 35,
16146 Genova, GE, Italy. *Realization of semigroups of modules in dimension greater than two.*

The set of isomorphism classes of finitely generated modules over a local ring equipped with the direct sum has a natural structure of Krull monoid. In this talk, we consider the following problem. Given a Krull monoid Λ and a positive integer d does there exist a d -dimensional local ring R such that Λ is isomorphic to the semigroup of isomorphism classes of finitely generated R -modules? We give a positive answer to the previous question for any $d \geq 3$. This generalizes a result by Roger Wiegand who proved it for $d = 2$. (Received September 08, 2020)