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Title: On the decidability of the theory of modules over the ring of algebraic integers

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Abstract: This is a joint work with Sonia L'Innocente and Gena Puninski. We prove that the theory of modules over the ring of algebraic integers is decidable. Actually our approach applies to a wider class with other relevant natural examples, i. e. to effectively given Bézout domains B such that every nonzero prime ideal P is maximal, the residue field B/P is infinite, and the maximal ideal of the localization B_P is finitely generated. We discuss further possible generalizations.