The module $M$ over the commutative ring $A$ is called a trace module, when $M = \tau(x)M$ for all $x \in M$, where $\tau(x)$ is the ideal $\{\mu(x) \mid \mu \in M^*\}$. These modules are also called, locally projective, universally torsionless and by Raynaud and Gruson flat strict Mittag-Leffler modules. Every projective module is a trace module and every trace module is flat. When $M$ is a trace module the natural map $M^* \otimes_A M \rightarrow \text{End}_A(M)$ is injective and its image consists of all endomorphisms $f$, such that $\text{Im} f$ is contained in some finitely generated submodule of $M$. For such a map $f$ corresponding to $z \in M^* \otimes_A M$, I define its trace as $\text{Tr}(f)$ as $e(z)$, where $e : M^* \otimes_A M \rightarrow A$ is the evaluation map. This generalises the ordinary trace for an endomorphism on a finitely generated projective module. The alternating powers of a trace module turn out also to be trace modules. This I use to define the characteristic polynomial of $f$ as the polynomial(!)

$$\sum_{i=0}^{\infty} \text{Tr}(\wedge^i(f)).$$

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