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Graham J Leuschke* (gjleusch@math.syr.edu), Mathematics Department, 215 Carnegie,
Syracuse University, Syracuse, NY 13244. *Cohen-Macaulay Endomorphism Rings*.

Despite their essential noncommutativity, endomorphism rings of modules are ubiquitous in commutative algebra. In particular, a finitely generated module whose endomorphism ring is maximal Cohen-Macaulay as a module is both rare and useful. For an example of rarity, recall that a classical result of Auslander and Goldman shows that if R is a regular local ring and M a reflexive R -module such that $\text{End}_R(M)$ is free as an R -module, then M is free. I will give a survey of selected contexts where maximal Cohen-Macaulay endomorphism rings arise. Particular attention will be paid to geometric applications, including recent connections with resolutions of singularities. (Received August 30, 2005)