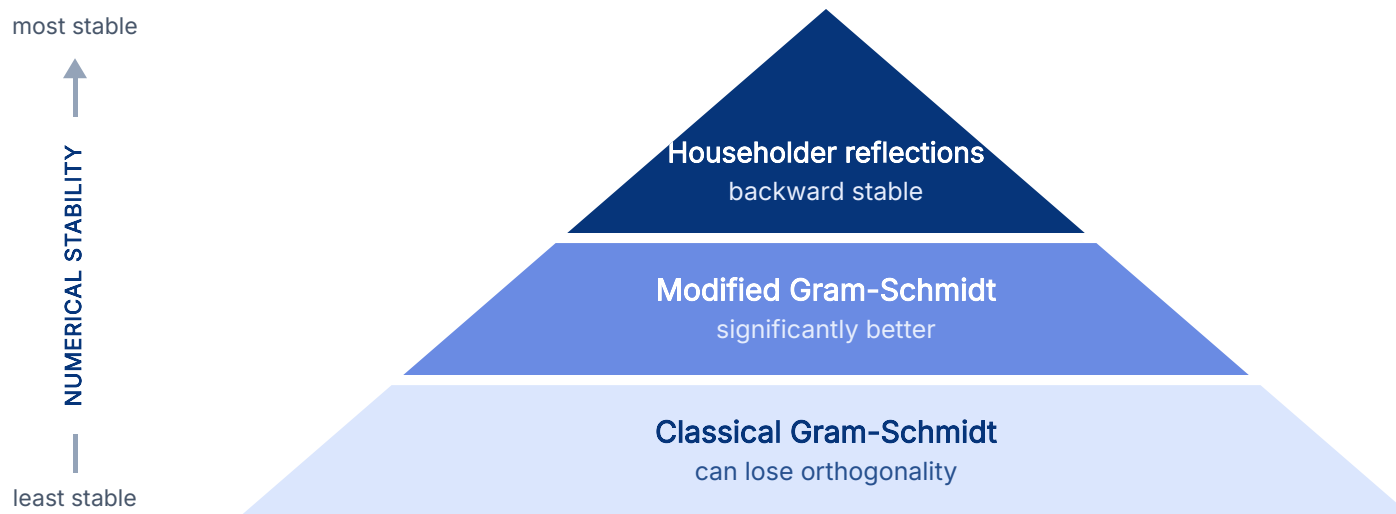


BEFORE YOU READ

Same result, different stability

All three methods produce the same QR factorization in exact arithmetic. In floating-point arithmetic they rank by how well the computed columns of Q stay orthogonal.



TAKEAWAY

In practice

Householder is the default for dense matrices, Givens rotations for sparse ones, and modified **Gram-Schmidt** when Q is needed explicitly.