

Woodbury Matrix Identity: $(A + UCV)^{-1} = A^{-1} - A^{-1}U(C^{-1} + VA^{-1}U)^{-1}VA^{-1}$

CauchySchwarz inequality: $|\langle U, V \rangle| \leq \langle U, U \rangle \langle V, V \rangle$