1.15: Methods for Solving the Photonic Bandstructure

How does the Rayleigh-Ritz algorithm work?

A. Assume the answer is uniform, and then maximize the Block Rayleigh quotient
B. Minimize the Block Rayleigh quotient with an initial guess, then use orthogonal guesses to minimize subsequent Block Rayleigh quotients
C. Calculate the Block Rayleigh quotient for each direction
D. Apply the A matrix repeatedly to an initial guess until it converges.
E. Invert the A matrix via LU decomposition and apply it to all directions.