Computation Time vs Problem Size for Iterative Methods (Log-Log Scale)  $10^{1}$ 🗕 Jacobi Steepest Descent → Gauss-Seidel  $10^{0}$  Conjugate Gradient O(N^2) --- O(N^3)  $10^{-1}$ Time (seconds)  $10^{-2}$  $10^{-3}$  $10^{-4}$ 10<sup>-5</sup>  $2 \times 10^{1}$  $3 \times 10^{1}$  $4 \times 10^{1}$  $6 \times 10^{1}$  $10^{2}$ Problem Size (N)