

**MATLAB EXERCISE 2.14** **RG-55/U coaxial cable.** An RG-55/U coaxial cable has conductor radii  $a = 0.5$  mm and  $b = 3$  mm. The dielectric is polyethylene ( $\epsilon_r = 2.25$ ). Determine the capacitance per unit length of the cable using the capacitance calculator from the previous MATLAB exercise.

**SOLUTION:**

The capacitance per unit length of the RG-55/U coaxial cable amounts to  $C' = 70$  pF/m.