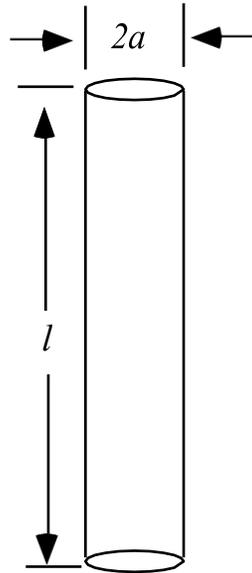


ECE 546 HOMEWORK No 2 - Due Friday, February 20, 2026



1. Write a program to calculate the charge distribution on a straight thin wire of length l and radius a ($\ll l$), held at a potential $1V$ as shown above using the method of moments. Show a plot of the charge distribution for the case where $l = 1m$ and $a = 1\text{ mm}$.

Refer to: *Elements of Engineering Electromagnetics*, N. N. Rao, Prentice Hall,

- a. Second Edition, 1987, pp. 229-233
- b. Fourth Edition, 1994, pp. 247-251
- c. Sixth Edition, 2004, pp. 739-742