

Nutcracker: Problem set -2

Physics

Capacitance of an ellipsoid Consider an ellipsoid of rotation. i.e., an ellipse of major axis a and minor axis b , rotated about its major axis. Find the capacitance of a conducting surface in the shape of an ellipsoid.

Hint: take a finite uniform line charge, and find its potential everywhere. See if you can use compare this with the above problem.

Solutions should be mailed to bharathm@iitk.ac.in before 8 PM tomorrow (1st sep). If you have written it by hand, get it scanned. (scanning can be done in CC or hall 1 xerox shop) Don't forget to write your hall name and pool name along with your name.