1172-31-38 Richard S. Laugesen* (laugesen@illinois.edu). Minimizing capacity among linear images of rotationally invariant conductors.

Logarithmic capacity is found to be minimal for a planar set having N-fold rotational symmetry, among all conductors obtained from the set by area-preserving linear transformations. Newtonian and Riesz capacities obey a similar property in all dimensions under suitably normalized linear transformations, although volume normalization remains an open problem. A corollary is Pólya and Schiffer's lower bound on capacity in terms of moment of inertia. (Received August 10, 2021)