1161-46-190 Ben (Li* (bxl292@case.edu), Castern Schuett and Elisabeth M Werner. Affine invariant maps for log-concave functions.

Affine invariant points and maps for sets were introduced by Gruenbaum to study the symmetry structure of convex sets. We extend these notions to a functional setting. The role of symmetry of the set is now taken by evenness of the function. We show that among the examples for affine invariant points are the classical center of gravity of a log-concave function and its Santalo point. We also show that the recently introduced floating functions and the John- and Loewner-functions are examples of affine invariant maps. Their centers provide new examples of affine invariant points for log-concave functions. (Received August 17, 2020)