1046-42-68 **William O. Bray*** (bray@math.umaine.edu), Department of Mathematics and Statistics, University of Maine, 333 Neville Hall, Orono, ME 04469. *Growth properties of Fourier transforms via moduli of continuity.*

A classical theme in harmonic analysis is embodied in the statement: behavior of the modulus of continuity of a function for small parameter reflects in the behavior of the Fourier transform for large parameter. In this talk we present weighted estimates of Fourier transforms in terms of an L^p-modulus of continuity defined using spherical means. The viewpoint will be carried out in Euclidean space and rank one symmetric spaces of non-compact type (joint work with M.A. Pinsky, to appear in the Jour. Func. Anal.). I will also present progress in this vein in the realm of general symmetric spaces of Euclidean type and non-compact type. (Received July 20, 2008)