1100-30-345 **Brett W. Hafferkamp*** (brett.hafferkamp@ttu.edu). *Expected Values of Conformal Radius. Preliminary Report.* Preliminary report.

Conformal radius $R(D, z)$ is an important characteristic of a planar domain D at its point z. It controls scaling under conformal mapping, accuracy of polynomial approximation in the complex plane, and is related to energy and capacity of two-dimensional distributions of charges.

There are numerous publications concerning bounds and estimates for the *maximal value* of the conformal radius when z is varying within D. This study is an attempt to find similar bounds and estimates for the *expected value* $\mathbf{E}(R(D, z))$ of $R(D, z)$ when the reference point z is uniformly distributed over D. In particular, we will discuss a transformation rule of the expected value under conformal mappings and present examples of evaluation of the expected values for some standard geometrical configurations. This is a joint work with A. Yu. Solynin. (Received February 10, 2014)