1014-11-862 **Stephen Choi*** (kkchoi@cecm.sfu.ca), Department of Mathematics, Simon Fraser University, Burnaby, B.C. V5CA 1S6, Canada. *Arithmetic Mean and Geometric Mean of Mahler Measure of Unimodular Polynomials.* Preliminary report.

In this talk, the arithmetic mean (A.M.) and geometric mean (G.M.) of Mahler measure of unimodular polynomials, i.e, polynomials with complex coefficients on the unit circle, will be discussed. We will prove that

$$0.749306\cdots = e^{-\gamma/2} \leq \text{G.M.} \leq \text{A.M.} \leq \frac{\sqrt{\pi}}{2} = 0.886\cdots.$$

The computational data suggests that the A.M. is in fact equal to $e^{-\gamma/2}$ and hence we conjecture that A.M. = G.M. = $e^{-\gamma/2}$. This is a joint work with Michael Mossinghoff. (Received September 25, 2005)