

**On The Regression Function Estimation
By First Kind Tchebichef Polynomial**

T. W. Chen

Tamkang University

R.O.C.

Wen-Jinn Sheen

Tamkang University

R.O.C.

Abstract

An estimate of a regression function via first kind Tchebichef polynomial is obtained and its consistency is discussed. We are interested in finding the rate of convergence of the mean square error of the estimator at a certain point under certain conditions.

Keywords: Regression Function Estimation, First Kind Tchebichef Polynomial, Mean Square Error.