Predictor of AR(1) with a Linear Trend following Preliminary Unit Root Tests

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Abstract: In this talk, we introduce a method to find the predictor and scaled prediction mean square error of an AR(1) model with a linear trend following preliminary unit root tests. Monte Carlo simulation results are given to compare the relative efficiencies of one-step-ahead prediction using the scaled mean square error for the model. All preliminary unit root tests considered here perform well to improve the predictor from the trending AR(1) process when the autoregressive parameter approaches to 1. In addition, the preliminary unit root tests KPSS and DF-GLS are slightly preferable to other unit root tests.