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A BIVARIATE UNIFORM AUTOREGRESSIVE PROCESS

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Abstract. We define the bivariate first order stationary autoregressive process $\{(X_n, Y_n)\}$ with uniform marginal distribution where $\{X_n\}$ and $\{Y_n\}$ are the two stationary sequences with uniform $\mathcal{U}(0, 1)$ marginal distributions. We also estimate the unknown parameters of the model.

Key words and phrases: Uniform autoregressive process, new uniform autoregressive process, first-order, second-order, bivariate uniform autoregressive process, autocovariance and autocorrelation matrix, estimation.