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Yunwei Cui* (cuiy@uhd.edu), One Main Street #S705, Houston, TX 77002. *A class of integer-valued long memory time series*. Preliminary report.

This work proposes a new model for stationary time series of integer counts. It uses renewal processes to generate correlated Bernoulli series. By simple operations on the identical and independent copies of such processes, we are able to generate a class of long memory count series. To our best knowledge, this is the only known method about how to generate long memory integer-valued time series with Binomial, Poisson, Negative Binomial, and Geometric marginal distributions. The method proposed is simple and approachable to anyone with knowledge in stochastic renewal processes. (Received August 28, 2009)