Stochastic comparisons and multivariate dependence for the epoch times of trend renewal processes

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SUMMARY

We study stochastic comparisons and dependence properties for the epoch and inter epoch times of trend renewal processes with (possibly) different baseline renewal process and trend functions. These results extend some of the results on the nonhomogeneous Poisson process in Belzunce et al. [1, 2] to those on trend renewal process. Some applications of the obtained results to a shock model, a repair process and some specific class of intermediate order statistics are provided.

Keywords: Stochastic comparison; trend renewal process; epoch times; dependence properties

AMS Classification: 60E15, 60K05, 60K10

References

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