Some properties of generalized reversed aging intensity functions

Francesco Buono[1], **Maria Longobardi**[1], **Magdalena Szymkowiak**[2]

[1] *Università di Napoli Federico II*
[2] *Poznan University of Technology*

Abstract

The classic reversed aging intensity is defined as the ratio of the instantaneous reversed hazard rate to the baseline value of the reversed hazard rate. It analyzes the aging property quantitatively, the higher the reversed aging intensity, the weaker the tendency of aging. In the paper we consider a family of generalized reversed aging intensity functions. We prove that in some cases the generalized reversed aging intensity function characterizes a unique distribution function and in the other situations, determines a family of distributions. Moreover, we introduce generalized reversed aging intensity orders and present their relations with some well known stochastic orders.

References

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