ON STOCHASTIC COMPARISONS OF ORDER STATISTICS IN TWO-SAMPLE PROBLEM FOR EXPONENTIAL DISTRIBUTION

Sudradjat SUPIAN¹ and Ciprian Costin POPESCU²

¹Department of Mathematics
Faculty of Mathematics and Natural Sciences
Padjadjaran University, Bandung, Indonesia

²Department of Mathematics
Academy of Economic Studies Bucharest, Romania

Abstract

The purpose of this paper is to discuss stochastic comparisons between statistics $X_{n:n}$ and $Y_{n:n}$ from two samples, according to dispersive orderings and hazard rate orderings, when left truncated exponential random variables appears, and the related case of independent left truncated exponentials with unequal scale parameters.

2000 AMS Subject Classification: 60G20, 60E15.

Keywords: Stochastic order, *IFR*, *DFR*, Hazard rate, Dispersive ordering, Left truncated exponential distribution.