

混合泊松分布的随机序

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Stochastic Ordering of Mixed Poisson Distribution

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摘要 研究了混合泊松分布类的随机控制序、失效率序以及失效率函数,证明了混合泊松分布类相对其结构分布类的随机控制序(失效率序)是保随机控制序(失效率序)的,但是结构分布类相对其混合泊松分布类的随机控制序却不一定是保随机控制序的,并通过实例证明了混合泊松随机变量的失效率函数并非都是递增的。

关键词: [混合泊松分布](#) [随机序](#) [随机控制序](#)

Abstract: Stochastic dominance ordering, failure-rate ordering and failure-rate function of mixed Poisson distribution are investigated. It is proved that the class of stochastic dominance ordering of mixed Poisson distribution corresponding to the class of structural distribution keeps the stochastic dominance ordering. However the class of structural distribution corresponding to the class of stochastic dominance order of mixed Poisson distribution is not definitely of stochastic dominance preserving-order. It is shown by examples that the failure function of mixed Poisson random variables does not definitely increase progressively.

Keywords: [mixed Poisson distribution](#), [stochastic ordering](#), [stochastic control order](#)

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