IMM - DTU

02405 Probability
2003-10-14
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such that Y follows an exponential distribution with parameter(intensity) $\frac{\lambda}{c}$. We define a new random variable $Y = cX$. The distribution of Y

$$P(Y \leq y) = P(cX \leq y) = P\left(X \leq \frac{y}{c}\right) = 1 - e^{-\lambda \frac{y}{c}} = 1 - e^{-\frac{\lambda}{c} y}$$