

The Max Weibull- G power series distributions

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On the base of Weibull- G family of probability distributions (introduced recently by Burguignon et al. (2014)) it was proposed a new family of probability distributions applied for solving reliability problems too, called Max Weibull- G power series distribution (MaxWGPS). That means, MaxWGPS is a distribution of the random variables $\max(X_1, X_2, \dots, X_N)$, where X_1, X_2, \dots are independent, identically, Weibull- G distributed random variables and N is a natural random number, whose distribution belong to the family of power series distributions. The main characteristics and properties of these distributions was analysed.