Glossary for Loss Data Analytics

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Contents

Chapter 1

Terms by Chapter

1.1 Chapter 2 Terms

Term	Definition
Aggregate Claims	The sum of all claims observed in a period of time
Bernoulli distribution	A special case of the binomial distribution where the number of trials is equal to 1, leading to only 2 potential outcomes: success or failure
Binomial distribution	A Frequency distribution of the possible nuber of successful outcomes in a given number of trials in each of which there is the same probability of success.
Distribution function F(x)	A Function that gives the probability that a discrete random variable is equal to or less than some value.
Frequency	The rate at which something occurs or is repeated over a particular period of time or in a given sample.
Gamma Distribution	A two parameter family of continous probability distributions that is defined by a shape and scale parameter.
Maximum Liklihood Estimator	The maximum likelihood estimator (mle) for ? is any maximizer of the likelihood; in a sense the mle chooses the parameter value that best explains the observed observations
Mixture	A probabilistic combination of two or more probability distributions
Moment generating function	A real function whose derivatives at zero are equal to the moments of the random variable.
Negative binomial	

Term	Definition
Poisson	A discrete probability distribution that expresses the probability of a given number of events occuring in a fixed interval of time or space if these evetns occur with a known constant rate and independently of the time since the last event.
Probability generating function	A power series representation of the probability mass function of the random variable.
Probability mass function f(x)	A Function that gives the probability that a discrete random variable is exactly equal to some value.
Severity	The amount of damage that is (or that may be) inflicted by a loss or catastrophe.
Survival function S(x)	A function that gives the probability that an object of interest will survive beyond a specified time.
Zero Modifided Distribution	A modified member of the (a,b,0) class that has had its probability mass at 0 modified in some way. The rest of the probability masses are adjsuted to accomadate this modification.
Zero Truncated Distribution	A modified member of the (a,b,0) class that has a probability mass of 0 at 0. The rest of the probability masses are adjsuted to accomadate this modification.

Chapter 2

Terms by First Definition

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