Rplot2\_AdjCoef.R Graphical solution for adjustment coefficient

Rplot3.R Graphical solution for maximising R

processes.R Plots for Poisson process, Cramer-Lundberg process

**Fitting distributions**

DataA refers to Valdez-DataSetA.csv.

DataB refers to Klugman-DataSetB-Modified.csv which contains censor and excess information

DataSummStats.R Produce a summary of statistics of a given data

FitBurrXII\_DataA.R Assuming that DataA(B) follows a certain distribution (BurrXII, Gamma and Lognormal). Codes produce ppqq-plot, histogram, ecdf and calculate negative loglikelihood, KS, AD and chi-sqaure statistics and SBC.

FitGamma\_DataA.R

FitGamma\_DataB.R

FitLNormal\_DataA.R

FitLNormal\_DataB.R

interpol\_fn.R

KMestimates.R This is a function that takes the data and produces a Kaplan-Meier estimate of the empirical distribution function.

negll\_BurrXII\_DataA.R Functions that calculate the negative loglikelihood assume DataA(B) follows a certain distribution (BurrXII, Gamma and Lognormal).

negll\_gamma\_DataA.R

negll\_gamma\_DataB.R

negll\_lognorm\_DataA.R

negll\_lognorm\_DataB.R

dBurrXII.R Function that calculates the density of BurrXII distribution.

pBurrXII.R Function that calculates the cumulative probability of BurrXII distribution.

qBurrXII.R Function that calculates the quartile of BurrXII distribution given probability.

**Fitting and simulating copulas**

GammaSim.R Simulating from Cook-Johnson copula and Normal copula with Gamma(5,1) marginals.

LossALAE\_Clayton.R Loss-ALAE data - fitting the Clayton copula.

LossALAE\_Frank.R Loss-ALAE data - fitting the Frank copula.

LossALAE\_GHcopula.R Loss-ALAE data - fitting the Gumbel-Hougaard copula.

LossALAE\_Indep.R Loss-ALAE data - fitting the Independence copula.

**GLM**

PCarInsAmount.R Fitting a GLM (severity) model to PrivateCarIns1975-Data

PCarInsCount.R Fitting a GLM (frequency) model to PrivateCarIns1975-Data

PCarInsCountOD.R Estimating variance function to check for over-dispersion