

## ABSTRACT

The performance of insurance company affected by the risk of insurance portfolio. Risk is the possibility that a claim will occur therefore it is necessary to model to know the risk in the portfolio insurance.  $M(t)$  is the number of claims in portfolio II which exceeds the largest claim of portfolio I. Claim size follows exponential distribution and claim frequency follows Poisson distribution. In this Final Project will implement  $M(t)$  using numerical simulations and generate probability distribution  $M(t)$  for dependent data claim insurance, then compare with formulation of  $M(t)$  that already exist. Model  $M(t)$  is an analytic result which derivation of Copula.

keyword : insurance claim, dependent,  $M(t)$ , copula, simulation, numerical, risk, exponential, Poisson.