ABSTRACT

This final project is about Asian option price calculation type arithmetic average call with Monte Carlo simulation to get the convidence interval of the estimate of option value. Asian option is a kind of option which its value depend on the averages of its underlying assets value during the time of contract. With Monte Carlo simulation, the movement of the stock price will repeatedly simulate to get the estimate of option value. The movement of the stock price following the Geometric Brownian Motion.

From the numeric simulation, we get that the estimation of option value is between the confidence interval 95% and if we increase the number of Monte Carlo simulation, it will decrease the range of confidence interval and also decrease the value of standar deviation. It means that the resulting value will be more accurate.

Keyword : Asian option, payoff, Geometric Brownian Motion, Monte Carlo simulation, theory of Central Limit