

## ABSTRACT

*The economic crisis is an event decreased dramatically in every sector of the economy, one of the effects of the economic crisis was the crash on the financial markets. Crash that occurred in the financial markets is a decrease in sudden and drastic against the index of stock prices over a short period of time. Ketidakpaastian the time of the crash the stock made a concern for equity investors, because of the risk of substantial losses to the capital they invest. One of the mathematical models used to predict the crash in the financial markets is a Log Periodic Power Law (LPPL). This research applies genetic algorithm to estimate the parameters of the model LPPL. Performasi analysis was then performed using the coefficient of determination of the model Log Periodic Power Law (LPPL) obtained the reference data used. The prediction results using a stock crash LPPL genetic algorithm to predict the timing of the stock crash of the observation period January 2005-January 2009 was on the 3-April-2008 signaled the end of the speculative bubble in the stock price index LQ45. LPPL the performance of the model in predicting the likelihood of a crash depends on the share price range of observation time is applied.*

**Keywords:** *Crash, Stock Price Index, Genetic Algorithm, LPPL, Coefficient of Determination*