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Lesser Sunda Islands Earthquake Inter-Occurrence Times Distribution Modeling

Indira Puteri Kinasih[1]
1 Mathematical Education Department
IKIP Mataram
Mataram - Indonesia
indiraputeri@gmail.com

Giri Wahyu Wiriasto[2,3], Bulkis Kanata[2,4], Teti Zubaidah[2,5]
2 Electrical Engineering Department
Mataram University
Mataram – Indonesia
3 giriwahyuwiriasto@te.ftunram.ac.id, 4 uqikanata@te.ftunram.ac.id,
5 tetizubaidah@te.ftunram.ac.id

Abstract. **This paper is aimed to analyze and modeling earthquake interoccurence times in Lesser Sunda Islands region using Weibull distribution. The data were classified into three categories, based on its magnitude; weak, medium, and strong earthquake. Cumulative distribution function and hazard rate are also explored in order to obtain the characteristics of earthquake inter-occurrences time data. Empirical result indicates probability and rate of an earthquake recurrence time with a certain magnitude and in a certain time. Medium and weaker earthquake have a bigger chance to occur and it reach 100% probability for the next 60 months. Meanwhile the stronger earthquake has a 75.80% probability of occurrence. It can be seen that the earthquake occurrence probability increase together with time increment.**

Keywords/phrases *: Weibull distribution, interoccurrence times, magnitude, Lesser Sunda Islands, earthquake.*

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