

KUZEY ANADOLU FAY ZONUNDA DEPREM OLUŞ ZAMANLARININ KARMA WEIBULL DAĞILIMIYLA MODELLENMESİ

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ÖZET

Bu çalışmada, $39.00^0 - 42.00^0$ kuzey enlemleriyle $30.00^0 - 40.00^0$ doğu boylamları arasında yer alan Kuzey Anadolu Fay Zonunda (KAFZ'nda) meydana gelen depremlerin oluş zamanları karma Weibull dağılımı ile modellenmiştir. Karma model yaklaşımının kullanılmasıyla deprem oluş zamanlarının modellenmesinde, klasik yaklaşıma göre daha iyi sonuçlar elde edilmiştir.

Anahtar Kelimeler: Karma weibull dağılımı, EM algoritması, Deprem tahmini, AIC, Kolmogorov-Smirnov testi

PROBABILISTIC PREDICTION OF EARTHQUAKE OCCURRENCE TIMES IN THE NORTH ANATOLIAN FAULT ZONE BY MIXTURE OF WEIBULL DISTRIBUTIONS

ABSTRACT

In this study, we modeled the earthquake occurrence time data which were occurred in the area coordinated 39-42 North latitudes and 30-40 East longitudes in North Anatolian Fault Zone (NAFZ) by mixture of Weibull distributions. In case of classical modeling the earthquake occurrence time data mixture model approach gives better results.

Key Words: *Mixture of weibull distributions, EM algorithm, Earthquake prediction, AIC, Kolmogorov-Smirnov*

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