

INTISARI

PENERAPAN COPULA GUMBEL-BARNETT PADA ANALISIS DATA SURVIVAL TERSENSOR KANAN

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Model regresi cox adalah model regresi *hazard* proporsional dengan fungsi *baseline hazard* nya dimodelkan secara non-parametrik dan fungsi variabel independennya dimodelkan secara parametrik. Data antar kejadian dapat dianalisis dengan regresi cox jika memenuhi asumsi kesamaan fungsi *baseline hazard* tiap-tiap individu. Pada data antar kejadian berpasangan dapat terjadi perbedaan distribusi *baseline hazard* antar data dan saling dependen. Sehingga untuk menganalisisnya dapat dimodelkan dengan copula. Selanjutnya, dengan melakukan iterasi Newton-Raphson dapat ditentukan parameter kovariat.

Kata Kunci : Model hazard proporsional, data tersensor kanan, copula

ABSTRACT

THE APPLICATION OF GUMBEL-BARNETT COPULA IN THE RIGHT CENSORED FAILURE TIME DATA ANALYSIS

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Cox regression model is a proportional hazard regression in which its baseline hazard function is in non-parametric models and its independent variable is in form of parametric models. The survival data were analyzed using cox regression if the data could meet the assumption of individual baseline hazard function. It is likely that there is a difference of baseline distribution between data and mutually dependent. Thus, it can be solved using copula model. Furthermore, by implementing Newton-Raphson iteration, the researcher then could determine the parameter covariate.

Keywords : Proporsional hazard model, right censored data, copula