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A Bayesian cure rate model based on the power piecewise exponential distribution

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Abstract

Cure rate models are applied to analyze survival data when the population has a proportion of subjects unsusceptible to the event of interest. Our model is formulated under a competing risks setup. The number of competing causes follows the negative binomial distribution, while for the latent times we posit the power piecewise exponential distribution. Samples from the posterior distribution are drawn through MCMC methods. Some properties of the estimators are assessed in a simulation study. A real dataset is analyzed using the proposed model as well as some existing models.

Joint work with:

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References

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