

The BayHaz package for Bayesian estimation of smooth hazard rates in R

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Abstract

Package `BayHaz` (La Rocca, 2007) for R (R Development Core Team, 2008) consists of a suite of functions for Bayesian estimation of smooth hazard rates using compound Poisson process priors, introduced by La Rocca (in press), and first order autoregressive Bayesian penalized spline priors, based on Hennerfeind *et al.* (2006). Prior elicitation, posterior computation, and visualization are dealt with. For illustrative purposes, a data set in the field of earthquake statistics is supplied. An interface to package `coda` (Plummer *et al.*, 2007) facilitates output diagnostics. Future plans are to implement other Bayesian methods for hazard rate estimation, and to make available an extension to the proportional hazards model.

References

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