Generalised Additive Models for Discrete Time Survival Data with Applications to Credit Risk

Modelling credit risk using survival analysis techniques has received considerable and increasing attention over the past decade. In these models, the predictor of the probability of default is often expressed as a simple linear combination of the risk factors. In this work we consider an extension of these models by expressing the predictor as a combination of flexible univariate functions of the risk factors. We assess this extension in terms of overall model quality and prediction performance using a large portfolio of credit card loans.