1038-62-155   **Jiexiang Li** and **Lanh T Tran*** (`tran@indiana.edu`), Department of Statistics, Statistics House, 309 N. Park Avenue, Bloomington, IN 47405. *Hazard rate estimation on random fields.*

Consider observations (representing lifelengths) taken on a random field indexed by lattice points. Our purpose is to estimate the hazard rate r(x), which is the rate of failure at time x for survivors up to time x. We estimate r(x) by a kernel-type nonparametric estimator. Under some general mixing assumptions, the limiting distribution of the estimator at multiple points is shown to be multivariate normal. The result is useful in establishing confidence bands for r(x). (Received February 06, 2008)