Jacod, Jean

Partial likelihood process and asymptotic normality. (English) Zbl 0632.62088

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The notion of partial likelihood, introduced by D. R. Cox and used by R. Gill, K. Dhzaparidze and others for particular cases, is generalized for binary statistical experiments when observations consist of a stochastic process which is a semimartingale with predescribed characteristics.

The idea is to write a formal expression for a likelihood process in spite of the fact that this expression contains as a nuisance parameter a nonobservable process. Nethertheless, it is possible to prove that this partial likelihood process can be used to obtain "nice" estimates of the parameter. In the paper a notion of the partial Hellinger process is presented and a result on asymptotic normality of partial likelihood processes is proved.

Reviewer: Yu.M.Kabanov

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