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**Joint modeling of longitudinal and time-to-event data: an overview.** (English) Zbl 1073.62087  
Stat. Sin. 14, No. 3, 809-834 (2004).

Summary: A common objective in longitudinal studies is to characterize the relationship between a longitudinal response process and a time-to-event. Considerable recent interest has focused on so-called joint models, where models for the event time distribution and longitudinal data are taken to depend on a common set of latent random effects. In the literature, precise statement of the underlying assumptions typically made for these models has been rare. We review the rationale for and development of joint models, offer insight into the structure of the likelihood for model parameters that clarifies the nature of common assumptions, and describe and contrast some of our recent proposals for implementation and inference.

**MSC:**

**62N02** Estimation in survival analysis and censored data  
**62N01** Censored data models

Cited in **1** Review  
Cited in **116** Documents

**Keywords:**

conditional score; likelihood; random effects; semi-nonparametric