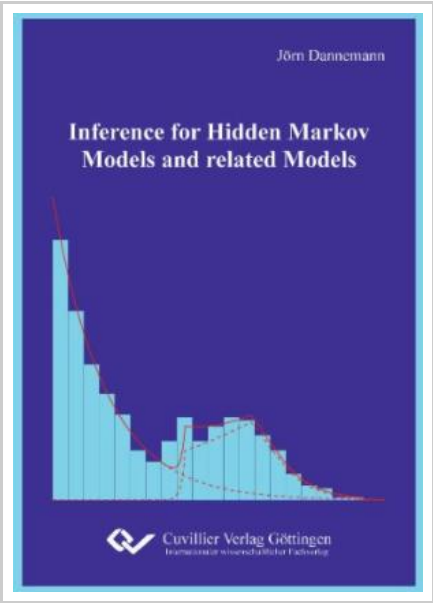

Inference for Hidden Markov Models and related Models

By Jörn Dannemann

Cuvillier Verlag Mrz 2010, 2010. Taschenbuch. Book Condition: Neu. 211x147x15 mm. Neuware - Hidden Markov models (HMMs) and other latent variable models form complex, flexible frameworks for univariate and multivariate data structures. In the last two decades models with latent variables have entered almost all fields of statistical applications. It is common for these models that unobserved variables are introduced to model a complex data structure given by the observables. A major advantage of latent structures is the principle simplicity and the accessibility to practitioners as well as their application-driven interpretations rather than black box systems. In this dissertation the statistical methodology of HMMs and related models is extended in certain aspects and illustrated by several applications from various fields, including epileptic seizures, financial time series and a dental health trail.We first investigate testing problems for HMMs under nonstandard conditions, namely when the true parameter lies on the boundary. In practical applications of HMMs, non-standard testing problems are frequently encountered, e.g. testing for the probability of staying in a certain unobserved state being zero. We derive the relevant asymptotic distribution theory for the likelihood ratio test in HMMs under these conditions. A number of examples with particular relevance in the...

Reviews

This book is definitely not straightforward to get started on studying but extremely exciting to read. It is really simplistic but shocks in the 50 percent of the ebook. Once you begin to read the book, it is extremely difficult to leave it before concluding.

-- ***Ally Reichel***

This publication is amazing. It is definitely basic but shocks in the fifty percent of your publication. You wont feel monotony at anytime of your own time (that's what catalogues are for concerning if you question me).

-- ***Prof. Kirk Cruickshank DDS***