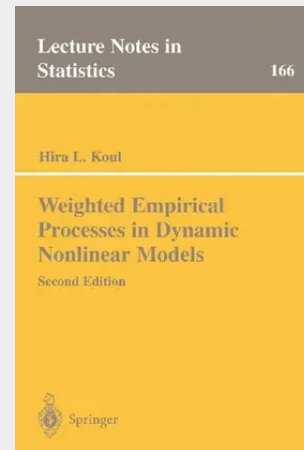


Weighted Empirical Processes in Dynamic Nonlinear Models

The role of the weak convergence technique via weighted empirical processes has proved to be very useful in advancing the development of the asymptotic theory of the so called robust inference procedures corresponding to non-smooth score functions from linear models to nonlinear dynamic models in the 1990's. This monograph is an expanded version of the monograph Weighted Empiricals and Linear Models, IMS Lecture Notes-Monograph, 21 published in 1992, that includes some aspects of this development. The new inclusions are as follows. Theorems 2. 2. 4 and 2. 2. 5 give an extension of the Theorem 2. 2. 3 (old Theorem 2. 2b. 1) to the unbounded random weights case. These results are found useful in Chapters 7 and 8 when dealing with homoscedastic and conditionally heteroscedastic autoregressive models, actively researched family of dynamic models in time series analysis in the 1990's. The weak convergence results pertaining to the partial sum process given in Theorems 2. 2. 6. and 2. 2. 7 are found useful in fitting a parametric autoregressive model as is expounded in Section 7. 7 in some detail. Section 6. 6 discusses the related problem of fitting a regression model, using a certain partial sum process. In both sections a certain transform of the underlying process is shown to provide asymptotically distribution free tests. Other important changes are as follows. Theorem 7. 3.

The role of the weak convergence technique via weighted empirical processes has proved to be very useful in advancing the development of the asymptotic theory of the so called robust inference procedures corresponding to non-smooth score functions from linear models to nonlinear dynamic models in the 1990's. This monograph is an expanded version of the monograph Weighted Empiricals and Linear Models, IMS Lecture Notes-Monograph, 21 published in 1992, that includes some aspects of this development. The new inclusions are as follows. Theorems 2. 2. 4 and 2. 2. 5 give an extension of the Theorem 2. 2. 3 (old Theorem 2. 2b. 1) to the unbounded random weights case. These results are found useful in Chapters 7 and 8 when dealing with homoscedastic and conditionally heteroscedastic autoregressive models, actively researched family of dynamic models in time series analysis in the 1990's. The weak convergence results pertaining to the partial sum process given in Theorems 2. 2. 6. and 2. 2. 7 are found useful in fitting a parametric autoregressive model as is expounded in Section 7. 7 in some detail. Section 6. 6 discusses the related problem of fitting a regression model, using a certain partial sum process. In both sections a certain transform of the underlying process is shown to provide asymptotically distribution free tests. Other important changes are as follows. Theorem 7. 3.



53,49 €
49,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9780387954769
Medium: Buch
ISBN: 978-0-387-95476-9
Verlag: Humana
Erscheinungstermin: 13.06.2002
Sprache(n): Englisch
Auflage: 2. Auflage 2002
Serie: Lecture Notes in Statistics
Produktform: Kartoniert
Gewicht: 1380 g
Seiten: 425
Format (B x H): 155 x 235 mm

