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the data generation process is unknown. These entropy methods aim to make the best possible use of available data and use an 'information criterion' to choose one of the infinite distributions that are consistent with the observed data in situations where the data are not sufficient to allow estimation of all parameters.

The text assumes a high level of econometric knowledge, and, although the authors do provide a short summary of relevant economic theory, statistical readers without prior training in economics would probably find it necessary to undertake additional study to benefit from the technical material. However, the book is extremely well referenced throughout (with a comprehensive 13-page bibliography), so any reader needing further guidance would have no difficulty in sourcing relevant material. This book would be of interest to those readers wishing to advance their knowledge and understanding of how econometrics can be used to investigate questions of market power.

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Clinical Prediction Models—a Practical Approach to Development, Validation and Updating
E. W. Steyerberg, 2009
New York, Springer
xviii + 500 pp., £53.99
ISBN 978-0-387-77243-1

The development and application of prediction models is often suboptimal in medical research. This is the motivation which led Dr Steyerberg to write this well-structured and highly didactic book, which is aimed mainly at epidemiologists and applied statisticians.

Clinical Prediction Models consists of four parts. Part 1 is a simple and effective introduction to study designs and statistical techniques for the development of continuous, categorical, ordinal and survival prediction models.

Part 2 argues for the use of a seven-step procedure to model development: step 1, data inspection; step 2, coding of predictors; step 3, model specification; step 4, model estimation; step 5, model performance; step 6, model validation; step 7, model presentation. Part 2 contains very good sections on missing data, the bootstrap, shrinkage and penalization which purposely avoid the mathematical details that too often discourage the use of these important methods in medical research. Part 2 offers also an excellent discussion of calibration and discrimination, two aspects that are often confounded or wrongly employed in medical research.

Part 3 gives a detailed account of why most clinical prediction models fail to work outside the context in which they were developed and offers a reasoned and practical approach to testing external validity. Part 3 comprises also two sections on the updating of prediction models for new settings; these are particularly relevant, not only because this topic is rarely mentioned in other textbooks but also because, practically, it is often more important to test or refine previous models than to develop new models.

Part 4 analyses two well-known clinical studies as case-studies for model development. Such case-studies will help the reader to understand how to implement in practice the seven-step procedure for model development that is proposed by the author.

In keeping with the applied nature of the book, data sets and R code for most of the examples and for all the case-studies can be downloaded from the associated Web site (`http://www.clinical predictionmodels.org`).

In my opinion, *Clinical Prediction Models* provides a very good intermediate level treatment of model development, validation and updating applied to medicine; it also bridges the gap between basic regression textbooks, which do not discuss prediction models in detail, and more advanced books on model development, which are often avoided by the average applied statistician or epidemiologist because of their mathematical detail.

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Introduction to Nonparametric Estimation
A. B. Tsybakov
Berlin, Springer
214 pp., £47.99
ISBN 978-0-387-79051-0

My reaction on seeing the title of this book was 'Nonparametric estimation of what?'. The answer is densities, regression functions and some closely related concepts such as Gaussian white noise models. As is often the case 'Introduction to' in the title may be interpreted here as 'a fairly advanced treatment of'. The book is an updated translation of a French version that was published in 2003 and is based on lecture notes for a postgraduate course.

Owing to the nature of their training and work demands applied statisticians often do not have the mathematical background or time to cope easily with the advanced mathematics that are needed by, or at any rate used by, many theoretical statisticians.