

Simplicity, Inference and Modelling

Arnold Zellner, Hugo A. Keuzenkamp and Michael McAleer, 2001

Cambridge University Press, Cambridge

ix+302 pp. \$75 USA

ISBN 0-521-80361-6

This book contains seventeen contributions on the topics of simplicity and prediction from a variety of points of view. It is the outcome of a multidisciplinary conference held in Tilburg in 1997 "...to help clarify the definition and role of simplicity in scientific reasoning." (p. 1). Although among the contributors are mathematicians and computer scientists, all three editors and a large portion of the contributors are researchers in Econometrics or Economics.

It is difficult to review a book such as this, because each contribution is more or less a self contained essay; there is little to be said of the book as a whole. Although the reflection on simplicity and its role in modelling is a unifying glue, contributions are wildly different. Some deal with rather specialized topics (e.g., simplicity of an earnings frontier, complexity and coordination in games), others take a philosophical stance and still others are quite technical. Topics discussed other than those mentioned include AIC, Kolmogorov complexity, simplicity and model selection in econometric models, parsimony versus simplicity, the role of simplicity in the thinking of Nobel laureates in Economics, and others.

It is unlikely that any reader will like or enjoy all of them equally but anyone having an interest in the subject will find worth reading most of them. The newcomer to the field may find some essays too terse: that may be the case with the chapters by Paul Vitányi and Ming Li or Jorma Rissanen. Going directly to the more lengthy works of these authors like Ming Li and Vitányi(1993) or Rissanen(1989) seems to me a better choice. On the other hand, other chapters would serve quite well as an entry path to the topics discussed.

The book is hardback, well produced and includes a useful index. I found some not-too-annoying missprints which may be more the oversight of the authors.

I would have liked some discussion of topics like Vapnik-Chervonenkis dimension, the theory of regularization or statistical learning, which seem to me relevant to the subject matter of the book as different approaches to search for simplicity. However, as it is, I find the book a worthy addition to any university library and would recommend it without much hesitation.

Reference

Rissanen, J.(1989) *Stochastic Complexity in Statistical Inquiry*, Singapore: World Scientific.

Li, M. and Vitányi, P.(1993) *An Introduction to Kolmogorov complexity and its applications*, New York: Springer Verlag.

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