presupposes a working knowledge of basic topics in dynamics such as sinks and sources, saddle nodes and period doublings, none of which are precisely defined. There is a 12 page refresher course on manifold theory, tangent bundles, manifolds with boundary and the like, and a 6 page section devoted to transversality, structural stability, and genericity, but I'm afraid that the reader will need to be previously exposed to these topics to fully appreciate them. One can learn the preliminary material elsewhere, as for example in the book of Guckenheimer and Holmes [GH]. Holmes was Wiggins' thesis advisor and, because of this, their books are naturally complementary and provide a good "one-two punch" in applied dynamics.

Wiggins' book is aimed primarily at the practicing applied scientist who has encountered chaos in his or her work. It will undoubtedly give these scientists an excellent bag of tricks necessary to recognize chaos and, more importantly, to analyze it. In this endeavor, the book succeeds admirably.

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Stochastic equations for complex systems, by A. V. Skorohod. Translated by L. F. Boron, D. Reidel Publishing Company, Dordrecht, 1988, xvii + 175 pp., $69.00. ISBN 90-277-2408-3

The modern theory of Markov processes in $\mathbf{R}^d$ developed out of the pioneering work of Kolmogorov, Feller, Lévy, Itô, and Dynkin, and many deep properties of the basic processes such as Brownian motion and Lévy processes have been investigated. Moveover based on the seminal work of Doob, the general theory of processes and stochastic calculus of semimartingales were systematically developed during the 1960s and 1970s (cf. Dellacherie and Meyer [1] for a complete exposition). On the other hand, the study of complex stochastic systems is still in its infancy. The book under review contains two chapters each devoted to an important aspect of this subject. The first chapter is devoted to the construction of continuous Markov processes in locally compact state spaces, including for example manifolds of variable dimension and manifolds with boundary.