

I would say that this is the best book to read to get a broad feel for Loeb spaces. It has all the basic material, and a lot of examples which show just what sort of things can be done with Loeb spaces, and which cannot. There is helpful advice about which analogies between standard and nonstandard concepts are helpful and which are misleading. Those who wish to continue study of nonstandard probability theory, or who prefer less general Loeb space theory oriented specifically to continuous sample path processes, should read Keisler's monograph [K], which is a development of Brownian stochastic integration and the associated differential equations in a Loeb space setting, or [AFH-KL], which surveys a wide variety of applications of nonstandard analysis, with emphasis on probability theory. Of course, we warmly recommend the different departure, [N]. A good, current general introduction to nonstandard analysis is [HL].

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General theory of Markov processes, by Michael Sharpe. Academic Press, San Diego, 1988, xi + 419 pp., \$49.50. ISBN 0-12-639060-6

Probability theory is concerned with *random variables* and their distributions, and a family of random variables (X_t) indexed by a parameter is called a *stochastic process*. Among stochastic processes, one can roughly distinguish two main categories, whose study uses widely different methods: true stochastic processes are those for which there is indeed some