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BOOK REVIEW

D. REVUZ AND M. YOR, *Continuous Martingales and Brownian Motion*. Springer-Verlag, Berlin, 1991, 533 + ix pages, $89.00.

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The book's title is a little misleading. As the following chapter titles indicate, a better name would be *The Desktop Guide to Stochastic Processes*:

0. Preliminaries
1. Introduction
2. Martingales
3. Markov Processes
4. Stochastic Integration
5. Representations of Martingales
6. Local Times
7. Generators and Time Reversal
8. Girsanov's Theorem
9. Stochastic Differential Equations
10. Additive Functionals of Brownian Motion
11. Bessel Processes and Ray–Knight Theorems
12. Excursions
13. Limit Theorems in Distribution

The reason for the title is that, as the authors explain in the preface, "after a first chapter where Brownian motion is introduced, each of the following ones is devoted to a new technique or notion and to some of its applications to Brownian motion." Continuous martingales appear in the title since stochastic calculus in that level of generality figures prominently in the developments and much of the theory (e.g., local times) is developed not just for Brownian motion but also for continuous local martingales.

In the fifteen years or so since Halmos was book review editor at the *Bulletin of the American Math Society*, it has been traditional that a book review is an excuse for a mini-essay on the subject. That style, however, is not appropriate for a review of *Encyclopedia Brittanica* or of the French encyclopedia under review, so I will adopt a more traditional style, which in this case means cheerleading for what I think is a really terrific book.

Revuz and Yor's book contains a wealth of interesting material. Even though it is "only" 520 pages long, it has about 2000 pages of material in it. This book is some sort of literary fractal. Chapters, like number 12 on excursion theory, are almost books by themselves, and sections contain chap-

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