

Revuz, Daniel; Yor, Marc

Continuous martingales and Brownian motion. 3rd ed. (English) [Zbl 0917.60006](#)
Grundlehren der Mathematischen Wissenschaften. 293. Berlin: Springer. xiii, 602 p. (1999).

[For the review of the second edition from 1994 see [Zbl 0804.60001](#).]

From the preface: As we did to preface the second edition, we would like here again to single out a few topics closely related with the theme of this book, that have been the subject of some intensive study since 1994.

In a number of applications, processes with long-range dependence seem to fit the random phenomena under study better than do semi-martingales, and particularly diffusion processes; hence, the development of stochastic integration with respect to fractional Brownian motions;

the domain of validity of Itô's formula, and its interpretations, are constantly being extended; anticipative stochastic calculus;

the study of processes with independent increments in the light of previously found results for Brownian motion, and, more generally, diffusions; the publication of *J. Bertoin's* excellent book, *Lévy processes*. (1996; [Zbl 0861.60003](#)), gives great impetus to these developments;

asymptotics of diffusions in random environments.

Editorial additional note: In 2005 a third corrected printing of this edition has appeared, which also will be reviewed in detail.

MSC:

- [60-02](#) Research exposition (monographs, survey articles) pertaining to probability theory
- [60G44](#) Martingales with continuous parameter
- [60J65](#) Brownian motion

Cited in **1** Review
Cited in **1342** Documents