9. I. Herbst, *Dilation analyticity in constant electric field*. I: *The two body problem*, Comm. Math. Phys. **64** (1979), 279–298.

10. T. Kato, *Growth properties of solutions of the reduced wave equation with variable coefficients*, Comm. Pure Appl. Math. **12** (1959), 403–425.

11. J. Moser, *An example of a Schrödinger equation with almost periodic potential and nowhere dense spectrum*, Comment. Math. Helv. **56** (1981), 198–224.

12. J. von Neumann, *The mathematical foundations of quantum mechanics*, Princeton Univ. Press, Princeton, 1955 (Translation of *Die mathematische Grundlagen der Quantenmechanik*, Springer, Berlin, 1932).

13. J. R. Oppenheimer, *Zur Quantentheorie kontinuierlicher Spektren*, Z. Phys. **41** (1927), 268–293.

14. _____, *Three notes on the quantum theory of aperiodic effects*, Phys. Rev. **31** (1928), 66–81. Compare p. 74 with the original in Weyl, *op. cit.*, p. 268.

15. D. B. Pearson, *Singular continuous measures in scattering theory*, Comm. Math. Phys. **60** (1978), 13–36.

16. M. Reed and B. Simon, *Methods of modern mathematical physics*, Vol. IV: *Analysis of operators*, Academic Press, New York, 1978.

17. E. Schrödinger, *Quantisierung als Eigenwertproblem. Dritte Mitteilung: Störungstheorie, mit Anwendung auf den Starkeffekt der Balmerlinien*, Ann. Phys. (Leipzig) **80** (1926), 437–490.

18. B. Simon, *On the positive eigenvalues of one-body Schrödinger operators*, Comm. Pure Appl. Math. **22** (1969), 531–538.

19. H. Weyl, *Über gewöhnliche Differentialgleichungen mit Singularitäten und die zugehörigen Entwicklungen willkürlicher Funktionen*, Math. Ann. **68** (1910), 220–269.

20. A. Wintner, *On the location of continuous spectra*, Amer. J. Math. **70** (1948), 22–30.

21. _____, *The adiabatic linear oscillator*, Amer. J. Math. **68** (1946), 385–397; *Asymptotic integrations of the adiabatic oscillator*, Amer. J. Math. **69** (1947), 251–272.

EVANS M. HARRELL II

BULLETIN (New Series) OF THE
AMERICAN MATHEMATICAL SOCIETY
Volume 10, Number 2, April 1984

0273-0979/84 $1.00 + $.25 per page

Lectures from Markov processes to Brownian motion, by Kai Lai Chung, A Series of Comprehensive Studies in Mathematics, Vol. 249, Springer-Verlag, New York, 1982, viii + 239 pp., $34.00. ISBN 0-3879-0618-5

What ultimately constitutes a good mathematics book? It seems to the reviewer that this is a function $f(e, r, c)$ of the variables e = effort needed to comprehend the book, r = reward in the form of valuable understanding gained, and c = cost of the book. Of these, the first two are highly dependent on the reader, and, given the first two, dependence on the third is completely individual, hence need not be discussed here. We assume f is decreasing in e and increasing in r. On these assumptions, Chung's book comes out very well indeed for the present reviewer. But let us beware. The reviewer has recently written a book [*Essentials of Brownian motion and diffusion*, Math. Surveys, vol. 18, Amer. Math. Soc., Providence, R.I., 1981] which complements Chung's book to a considerable degree. It gets one over the hard beginning (especially §1.3, Optional Times) without appreciably encroaching on the content. For the two books together one might suggest the title *From Brownian motion to Markov processes and back*.