reviewer and S. Saeki [**1983**]. Both of these latter papers were apparently of too recent origin to be included in this book. Actually, this book had apparently been in gestation for some time and was adumbrated by the paper of L. A. Rubel and B. A. Taylor [**1969**], which the reader can profitably consult for a short excursion into some of the ideas discussed here, as well as some variations on the proofs in the book.

In conclusion, I feel the authors completely achieved their goal and have presented their case in a very lively, concise manner. The density of errors is very low (but regrettably there is no index). The chapters are short, and each is followed by a number of relevant, accessible exercises. The book is rewarding reading for cognoscenti and students alike.

BIBLIOGRAPHY

A. Beck, *On rings on rings*, Proc. Amer. Math. Soc. **15** (1964), 350–353. MR **29** #1347; Zbl **135**, p. 289.

C. Blair and L. A. Rubel, *A triply universal entire function*, l'Enseign. Math. (to appear).

R. B. Burckel and S. Saeki, *Additive mappings on rings of holomorphic functions*, Proc. Amer. Math. Soc. **89** (1983), 79–85, MR **84i**:30063; Zbl **532**. 30040.

R. Caccioppoli, *Sui funzionali lineari nel campo delle funzioni analitiche*, Rend. Accad. Lincei Roma (6) **13** (1931), 263–266; ibid. **15** (1932), 713–714. Jbuch **57**, p. 470; **58**, p. 427; Zbl **2**, p. 31; **5**, p. 14.

L. Carleson, *Mergelyan's theorem on uniform approximation*, Math. Scand. **15** (1965), 167–175. MR **33** #6368; Zbl **163**, p. 86.

P. L. Duren, *Theory of H^p-spaces*, Academic Press, New York & London, 1970. MR **42** #3552; Zbl **215**, p. 202.

S. D. Fisher, *Function theory on planar domains: a second course in complex analysis*, Wiley, New York, 1983. Zbl **511** #30022.

J. Garnett, *On a theorem of Mergelyan*, Pacific J. Math. **26** (1968), 461–468. MR **38** #1532; Zbl **165**, p. 169.

_____, *Bounded analytic functions*, Academic Press, New York & London, 1981. Zbl **469** #30024; MR **83g**:30037.

I. M. Gelfand, *Normierte Ringe*, Mat. Sb. (N.S.) **9(51)** (1941), 3–24. Jbuch **67**, p. 406; Zbl **24**, p. 406; MR **3**, p. 51.

K. M. Hoffman, *Banach spaces of analytic functions*, Prentice-Hall, Englewood Cliffs, N.J. 1962. MR **24** #A2844; Zbl **117**, p. 340.

I. Richards, *More on rings on rings*, Bull. Amer. Math. Soc. **74** (1968), 677. MR **37** #1980; Zbl **169**, p. 409.

L. A. Rubel and B. A. Taylor, *Functional analysis proofs of some theorems in function theory*, Amer. Math. Monthly **76** (1969), 483–489; ibid. **77** (1970), 58. MR **40** #384; Zbl. **175**, p. 443.

A. E. Taylor, *Notes on the history of the uses of analyticity in operator theory*, Amer. Math. Monthly **78** (1971), 331–342, 1104. MR **43** #5531; Zbl **211**, p. 304. (See also MR **58** #21239 and Zbl **211**, p. 423.)

R. B. BURCKEL

BULLETIN (New Series) OF THE
AMERICAN MATHEMATICAL SOCIETY
Volume 12, Number 2, April 1985

0273-0979/85 $1.00 + $.25 per page

Spectral theory of Banach space operators, by Shmuel Kantorovitz, Lecture Notes in Mathematics, Vol. 1012, Springer-Verlag, Berlin, Heidelberg, New York, Tokyo, 179 pp., $9.50, 1984. ISBN 3-5401-2673-2

The earliest results of the spectral reduction theory for bounded and unbounded selfadjoint operators can be found in works by D. Hilbert, F. Riesz