considered this book as it may affect a large audience rather than a particular one. As such it is an important contribution to the exposition of modern mathematics. It is indeed time for more such books, in the same field as well as others.

The references (p. 54) to Rauch are:

[6, 7] H. E. Rauch, *On the transcendental moduli of algebraic Riemann surfaces. On the moduli of Riemann surfaces*, Proc. Nat. Acad. Sci., U.S.A. **41** (1955), 42–48, 236–238. The references [**64**], [**65**], p. 44 come from the second paragraph on p. 40. [**64**] should read: cf. Cartan [**60**]. The Oka linking method is mentioned often in the same article. The reference [**4**] should be given.

HUGO ROSSI

Time series analysis. By E. J. Hannan. Methuen's Monographs on Applied Probability and Statistics, 1960, viii+152 pp. $3.50.

This small monograph deals with statistical inference where the basic model is a one-dimensional discrete-parameter process $y_t = m_t + x_t$ with x_t a stationary residual and m_t a mean value term. The book assumes a background in mathematics and statistics at the level of H. Cramér's text "Mathematical Methods of Statistics."

The first chapter (The Spectral Theory of Discrete Stochastic Processes) discusses the probability structure of the processes considered. The concept of a stationary process is introduced. What the author terms circularly defined processes are then introduced. These are stationary processes with parameter set the integers mod n. The second order moment structure of these processes can be simply given in terms of circulant matrices. The author often obtains results for stationary processes by suggesting a circularly defined process as an approximation, deriving the result for these simple processes using circulant matrices and then getting the analogous conclusion for stationary processes by a formal limiting procedure. In particular, the spectral representation for stationary processes is obtained in this manner. A rigorous proof of the spectral representation is given in an appendix. Basic results in the prediction problem for stationary processes are cited but not derived. Kolmogorov's formula for the one-step prediction error is then used to derive the asymptotic distribution of eigenvalues of the covariance matrix. It is a pity that the basic analytic work of G. Szegö that is fundamental in this context is not mentioned.

The second chapter (Estimation of the Correlogram and of the Parameters of Finite Parameter Schemes) contains a derivation of a weak ergodic theorem that is based on the spectral representation of