

so will not contain $A(K)$ where K is the state space of A . Nevertheless, $S(A)$ proves to be useful in analyzing facts about A . The primary tool of the authors is the use of the *complex state space*, the convex hull of $\alpha S(A)$ and $\beta S(A)$ for suitable complex scalars α and β . The authors use this framework to derive many of the classical results of peak and interpolation sets for function algebras. (The Hoffman-Wermer theorem, the Bishop peak point theorem, and the Rudin-Carleson theorem appear as corollaries to the developments here.)

The final chapter discusses convexity theory for C^* -algebras. The center and primitive ideal space of a C^* -algebra are given geometric characterizations, and the Dauns-Hoffman theorem (that the center consists of those elements of A which induce a continuous map on the primitive ideal space) is proved. The results of Effros and Prosser giving a duality of ideals of A and faces of $S(A)$ are derived. The book ends with a discussion of the results of Alfsen, Hanche-Olsen, Størmer, and Shultz characterizing those compact convex sets which are affinely homeomorphic to the state spaces of Jordan and C^* -algebras. The authors do an excellent job of giving a self-contained summary of these characterizations, including proofs of several key results.

The authors have done a nice job of presenting a large amount of diverse material in a cohesive and self-contained fashion. The material is presented clearly and succinctly, with well-chosen examples. The choice of topics is excellent—a variety of the most appealing results of the last twenty years or so in this area. (This is also an area in which the authors themselves have been quite active.)

The book would perhaps be a little difficult to use for quick reference. Results are sometimes stated in fairly complicated notation, with the notation (and some assumptions) explained in the preceding text. Thus a reader who is only browsing may have some difficulty following the spirit of the lemmas. (This should not cause any problems for the serious reader; in any case, this is only a localized problem.) In general the book makes for very enjoyable reading.

The material here has little overlap with that available elsewhere in books (e.g. the books of Alfsen and Phelps). I highly recommend the book for the functional analyst interested in a self-contained presentation of many of the most interesting results in this field in recent years.

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BULLETIN (New Series) OF THE
AMERICAN MATHEMATICAL SOCIETY
Volume 8, Number 2, March 1983
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0273-0979/82/0000-1160/\$01.75

John von Neumann and Norbert Wiener, from mathematics to the technologies of life and death, by Steve J. Heims, MIT Press, Cambridge, Mass., 1980, xviii + 547 pp., \$19.95 (HB), \$10.95 (PB). ISBN 0-2620-8105-9

By its title this book alerts the reader without any circumlocution that the author is not concerned primarily with writing biography but has set out to compose a contemporary morality play. His symbolic protagonists are Saint