difficult it may be to provide a solution to a nontrivial ACP problem. Recent attempts to simplify the solution are directed, in cases of Markovian ACP problems, towards a solution of an analogous continuous version of the problem, which involves a generalized Stephan free boundary problem of partial differential equations (see Chernoff [1], Grigelionis and Shiryaev [3]). There is no evidence in the book on this current orientation in research.

I have found the notation in several places very cumbersome and uncommon. For example see (3.2) or page 69 line 2 f.b. There are several printing errors and an integral sign is missing in the expression of $dF(\bar{x}_{t'} \mid x, s, t)$ above (3.8) on page 33. The bibliography is generally good, and the computer programs available for the TAB and the P.R.M. problems may be very useful. In summary, it is recommended that the monograph of Prof. Yakowitz be read by students and researchers who study ACP problems; however, one should read the book carefully.

REFERENCES

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[3] GRIGELIONIS, B. I. and SHIRYAEV, A. N. (1966). On Stephan's problem and optimal stopping rules for Markov processes. *Theor. Probability Appl.* **9** 541–558.
[4] QUISEL, K. (1965). Extensions of the two-armed bandit and related processes with on-line experimentation. Tech. Rep. No. 137, Inst. for Math. Studies in the Social Sciences, Stanford Univ.

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Review by VÁCLAV DUPAČ

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This is much more a collection of material than a monograph in the proper sense. The author reproduces smaller or greater parts of a number of different papers, often word for word, without any critical comparison of different results or methods (although some of the results reproduced are more general than others and some of the methods more powerful than others).

Moreover, the book contains some serious oversights and a large number of misprints. In Section 1.3, e.g., Wolfowitz's proof of the Dvoretzky Theorem is reproduced; however, while Wolfowitz states the theorem and its extension to-gether and proves it in three steps (preliminaries, convergence w.p.1, convergence i.m.s.), the author states the theorem and its extension separately, presenting the preliminary step of Wolfowitz's proof as a proof of the first theorem and the remaining two steps as a proof of the second one. Moreover, the extended theorem is formulated incorrectly, as it is the uniformity of the relation $\sum_{n=1}^{\infty} \gamma_n(\cdot) = \infty$ that should be required, not the uniformity of the inequality (4). Section 6.4, Confidence Intervals, is completely false, as is its starting formula (1). (This is

evident, for example, from the comparison with Section 2.5.) A bad misprint (?) appears in Theorem 2 of Section 6.3: the sentence "Let X_i be a fixed number *of* arbitrary random vari*ables...*" should, in fact, read "Let X_1 be a fixed number *or an* arbitrary random vari*able...*" On p. 183 (at the bottom), the inequality $\prod_{i=1}^{n}(1+b_i) < \sum_{i=1}^{n} b_i$ does not hold true, whereas the inequality $\sum_{i=1}^{\infty} b_i < \alpha \sum_{j=1}^{\infty} \delta_j/b_j < \infty$ has no sense. There are at least ten mistakes in the proof of Lemma 1 of Appendix 3: on page 175_4 it should be o instead of O, whereas on page 175_2 and everywhere on page 176 it should be O instead of o; the constant k_1 is defined incorrectly (page 176); on page 177^5 it should be $\xi_n' \leq \xi_n'(1-c/n)$ instead of $\xi_{n'+1} \leq \xi_n'$; the inequality $n > n_1 > \max(c, n_0, n_1)$ on page 177^9 has, of course, no sense. Throughout the book, the capital letters and the lower case are mixed up, which is really confusing at many places. A similar trouble exists with italics and the Roman type, so that it is sometimes difficult to see where a theorem actually ends.

To summarize, the book seems to have been published precociously, at a stage when there was still much work to be done on the manuscript.