

This manuscript table gives the probability that four jointly normally distributed random variables will be simultaneously positive (orthant probability) when the distribution has a mean of zero and a correlation matrix of the form

$$\begin{bmatrix} 1 & A & 0 & 0 \\ A & 1 & B & 0 \\ 0 & B & 1 & C \\ 0 & 0 & C & 1 \end{bmatrix}$$

where  $A$ ,  $B$ , and  $C$  are non-negative.

The values of this probability are tabulated to 6D for  $A = 0(0.05)0.95$ ,  $B = 0(0.05)0.95$ , and  $C = 0(0.01)0.99$ , consistent with the correlation matrix being positive definite. The author claims accuracy of the tabular values to at least 5D, on the basis of a number of checks. She briefly discusses the question of interpolation, and presents a method for using this table to calculate the orthant probability in the general case.

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**8[K].**—NORMAN T. J. BAILEY, *The Elements of Stochastic Processes with Applications to the Natural Sciences*, John Wiley & Sons, Inc., New York, 1964, xi + 249 p., 23 cm. Price \$7.95.

This book is highly recommended reading, and is a good introductory text in applied stochastic processes for three reasons:

- (1) It is clearly written, proceeding by examples; it is very readable and contains a number of exercises.
- (2) It attempts to be broad, covering a number of areas, and has chapters on recurrent events, random walks, Markov chains and processes, birth-death processes, queues, epidemics, diffusion, and some non-Markovian processes.
- (3) It does not belabor any one topic; it is, therefore, not too voluminous, and hence is challenging to the interested reader.

The author's experience in the field has produced a very fine contribution.

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**9[K].**—Statistical Engineering Laboratory, National Bureau of Standards, *Table of Percentage Points of the  $\chi^2$ -Distribution*, Washington, D. C., August 1950, 1 + 7 p. Deposited in UMT File.

This is a composite table made up from three previously published tables and by transformation or by interpolation in them.

The table uses the format of Thompson [2] and gives the percentage points of  $\chi^2$  for the following values of  $\nu$  and  $P$ :

$\nu$	$P$ and $1 - P$
1(1)30	.005, .01, .02, .025, .05, .10, .20, .25, .30, .50
31(1)100	.005, .01, .025, .05, .10, .25, .50
102(2)200	.01, .10, .25, .50
2(2)200	.000001, .0001