

Preface

The Second Edition adds 17 new figures bringing the total number to 124; many of the original figures have been revised. It also includes a new section with a novel derivation of the Beneš series for M/G/1 queues. It describes new results on the service time for three M/G/1 queueing models with bounded workload. It analyzes new applications of queues where zero-wait customers get exceptional service, including several examples on M/G/1 queues, and a new section on G/M/1 queues. There are two other important new sections: on the level crossing derivation of the finite time- t probability distributions of excess, age, and total life in renewal theory; and on a level crossing analysis of a risk model in insurance. These two new sections make it convenient to split the original Chap. 10 into two chapters. The new Chap. 10 is on renewal theory. The new first section of Chap. 11 is on a risk model. More explicit use is made of the renewal reward theorem throughout. Many technical and editorial changes have been made to facilitate readability. The Second Edition has many more specific citations and references to enhance efficiency of perusing the book: 145 references (102 in the First Edition); 125 works listed in the Partial Bibliography (56 in the First Edition). The Index has been expanded to expedite locating information in the book.

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Percy H. Brill

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Brill, P.H.

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