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A SURVEY OF STABILITY OF STOCHASTIC SYSTEMS

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The chief aim of this monograph is to present achievements and fundamental ideas accompanied by unproved results (from 1950 on), useful for understanding problems related to the stability of stochastic systems.

In the last 7—8 years (1961—1968), studies have appeared on the stability of stochastic systems, and the theoretical conclusions have been applied to a few general engineering problems.

As underlined in the paper, biological systems often have an almost certain type of stability, also called ultra-stability according to Ashby (Design for a Brain); it is theorefore a domain in which stochastic stability will play a major part.

A series of concepts concerning stability are presented (definition, analytic expression, brief comments and references to the bibliography). The author also deals with dynamic systems whose white Gaussian noise is incorporated in the equation system, and the last part deals with the other category of stochastic systems, i.e. those without white Gaussian noise.

S. D.