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Stability Analysis of Nonlinear Systems under Structural Perturbations

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This book focuses on some problems of stability theory of nonlinear large-scale systems. The purpose of this book is to describe some new applications of Liapunov matrix-valued functions method to the stability of evolution problems governed by nonlinear continuous systems, discrete-time systems, impulsive systems and singularly perturbed systems under nonclassical structural perturbations. The authors take a challenging and original approach based on concept of structural perturbations combined with direct Liapunov's method. This new approach will lead to results that cannot be obtained by standard theories of stability in the field.

The **Stability Analysis of Nonlinear Systems under Structural Perturbations** addresses to specialists in dynamical systems, applied differential equations, and the stability theory. It may be useful for graduated students in mathematics, control theory, and mechanical engineering.

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