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Sommario/riassunto	Switched delay systems appear in a wide field of applications including networked control systems, power systems, memristive systems. Though the large amount of ideas with respect to such systems have generated, until now, it still lacks a framework to focus on filter design and fault detection issues which are relevant to life safety and property loss. Beginning with the comprehensive coverage of the new developments in the analysis and control synthesis for switched delay systems, the monograph not only provides a systematic approach to designing the filter and detecting the fault of switched delay systems, but it also covers the model reduction issues. Specific topics covered include: (1) Arbitrary switching signal where delay-independent and delay-dependent conditions are presented by proposing a linearization technique. (2) Average dwell time where a weighted Lyapunov function is come up with dealing with filter design and fault detection issues beside taking model reduction problems. The monograph is intended for academic researchers and engineers in systems and control community who will discover of particular value in dealing with filter design and fault detection of switched system and time delay systems.

In addition, it will be helpful and complementary reading for graduate students in such field.