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Sommario/riassunto	<p>This book aims to develop systematic design methodologies to model-based nonlinear control of aeroengines, focusing on (1) modelling of aeroengine systems both component-level and identification-based models will be extensively studied and compared; and (2) advanced nonlinear control designs set-point control, transient control and limit-protection control approaches will all be investigated. The model-based design has been one of the pivotal technologies to advanced control and health management of propulsion systems. It can fulfil advanced designs such as fault-tolerant control, engine modes control and direct thrust control. As a consequence, model-based design has become an important research area in the field of aeroengines due to its theoretical interests and engineering significance. One of the central issues in model-based controls is the tackling of nonlinearities. There are publications concerning with either nonlinear modelling or nonlinear controls; yet, they are scattered throughout the literature. It is time to provide a comprehensive summary of model-based nonlinear controls. Consequently, a series of important results are obtained and a systematic design methodology is developed which provides</p>

consistently enhanced performance over a large flight/operational envelope, and it is thus expected to provide useful guidance to practical engineering in aeroengine industry and research.
