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Autore	Xu Jiakuan
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Sommario/riassunto	This book investigates in detail boundary layer transition-turbulence modeling methods, which is a hot research topic in fluid mechanics and aerospace engineering. It introduces detailed physical model construction ideas and extensive calculation examples, which will enable readers to learn how to choose the correct model to use, understand the whole process of physical model construction, and learn how to develop new models. Studies on transition-turbulence models have attracted engineers and scientists from various disciplines, such as aerospace engineering, wind energy, ocean engineering and engine engineering. Pursuing a holistic approach, the

book establishes several classical/representative transition-turbulence models for engine internal and external flows, while emphasizing the importance of PDE transport equation establishment and local computation methods for non-local variables. It is intended for post-graduate students and researchers who are interested in computational fluid dynamics and transition-turbulence modeling or aerodynamic shape design (laminar flow design and control).