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Nota di contenuto	Introduction -- Calculation and Analysis Method of Two Dimensional Curved Shock Wave Curved Compression Flow Field -- Forward Design of Two Dimensional Curved Shock Wave Curved Compression Surface -- Inverse Design of Compression Inlet with Specified Exit Aerodynamic Parameters -- Inverse Design of Curved Shock Wave Compression Surface on Basis of Specified Wall Aerodynamic Parameters -- Inverse Design of Axisymmetric Reference Flow Field on Basis of Specified Wall Aerodynamic Parameters -- Inverse Design and Experiment of Hypersonic Curved Shock Wave Compression Inlet -- Concept of Hypersonic Adaptive Variable Geometric Curved Compression Inlet -- Features and Drag Reduction Analysis of Drag in Hypersonic Inlet -- The Development of Curved Compression and Application Prospect.
Sommario/riassunto	This book presents systematic research results on curved shock wave-curved compression surface applied to the compression surface design of supersonic–hypersonic inlet, which is a brand new inlet design. The concept of supersonic inlet curved compression discussed originated from the author’s research at the Deutsches Zentrum fur Luft- und Raumfahrt (DLR SM-ES) in the early 1990s. This book introduces the

research history, working characteristics, performance calculation and aerodynamic configuration design method of this compression mode in detail. It also describes method of estimating the minimum drag in inlet and drag reduction effect of curved compression and proposes a new index for evaluating unit area compression efficiency of the inlet. Further, it reviews the relevant recent research on curved compression. As such it is a valuable resource for students, researchers and scientists in the fields of hypersonic propulsion and aeronautics.