

## Numerical Simulation of Shock/Turbulent Boundary Layer Interaction (Paperback)



Filesize: 9.69 MB

### ***Reviews***

*Extremely helpful for all type of folks. It generally is not going to expense a lot of. I found out this book from my dad and i advised this book to find out.*

***(Melany Goyette)***

## NUMERICAL SIMULATION OF SHOCK/TURBULENT BOUNDARY LAYER INTERACTION (PAPERBACK)

[DOWNLOAD PDF](#)

Independently Published, United States, 2018. Paperback. Condition: New. Language: English. Brand new Book. Most flows of aerodynamic interest are compressible and turbulent. However, our present knowledge on the structures and mechanisms of turbulence is mostly based on incompressible flows. In the present work, compressibility effects in turbulent, high-speed, boundary layer flows are systematically investigated using the Direct Numerical Simulation (DNS) approach. Three-dimensional, time-dependent, fully nonlinear, compressible Navier-Stokes equations were numerically integrated by high-order finite-difference methods; no modeling for turbulence is used during the solution because the available resolution is sufficient to capture the relevant scales. The boundary layer problem deals with fully-turbulent compressible flows over flat geometries. Apart from its practical relevance to technological flows, turbulent compressible boundary layer flow is the simplest experimentally realizable turbulent compressible flow. Still, measuring difficulties prohibit a detailed experimental description of the flow, especially in the near-wall region. DNS studies provide a viable means to probe the physics of compressible turbulence in this region. The focus of this work is to explore the paths of energy transfer through which compressible turbulence is sustained. The structural similarities and differences between the incompressible and compressible turbulence are also investigated. The energy flow patterns or energy cascades are found to be directly related to the evolution of vortical structures which are generated in the near-wall region. Near-wall structures, and mechanisms which are not readily accessible through physical experiments are analyzed and their critical role on the evolution and the behavior of the flow is documented extensively. Biringen, Sedat and Hatay, Ferhat F. Unspecified Center NAG1-1472.

[Read Numerical Simulation of Shock/Turbulent Boundary Layer Interaction \(Paperback\) Online](#)[Download PDF Numerical Simulation of Shock/Turbulent Boundary Layer Interaction \(Paperback\)](#)

## Other eBooks

**Elements Of Optoelectronics & Fiber Optics (Pb: Chen**

PAPERBACK. Condition: New. Book Cover and ISBN may be different from US edition but contents as same US Edition. Excellent Quality, Service and customer satisfaction guaranteed! We may ship the books from Asian regions for...

[Download](#) [Book](#)

»

**Nessus Network Auditing: Beale Jay Et.Al**

PAPERBACK. Condition: New. Book Cover and ISBN may be different from US edition but contents as same US Edition. Excellent Quality, Service and customer satisfaction guaranteed! We may ship the books from Asian regions for...

[Download](#) [Book](#)

»

**THE WADSWORTH GUIDE TO RESEARCH 2ED (IE): MILLER-COCHRAN S K**

PAPERBACK. Condition: New. Book Cover and ISBN may be different from US edition but contents as same US Edition. Excellent Quality, Service and customer satisfaction guaranteed! We may ship the books from Asian regions for...

[Download](#) [Book](#)

»

**MCQS FOR FIRST FRCR OXSTRT:NCS P: VARDHANABHUTI, JAMES, GRAY**

PAPERBACK. Condition: New. Book Cover and ISBN may be different from US edition but contents as same US Edition. Excellent Quality, Service and customer satisfaction guaranteed! We may ship the books from Asian regions for...

[Download](#) [Book](#)

»

**PresentationExpress for Realidades 2**

Prentice Hall. CD-ROM. Condition: New. 0131661477 Quick and easy instructional tool that helps teachers present, practice, and assess the vocab and grammar taught in Realidades. Brand new.

[Download](#) [Book](#)

»