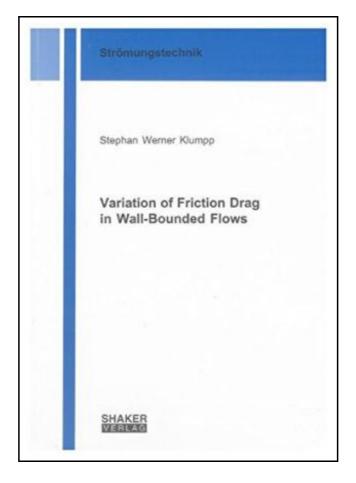
Variation of Friction Drag in Wall-Bounded Flows



Filesize: 6.39 MB

Reviews

Merely no terms to spell out. It really is rally exciting through reading through period. Your daily life period is going to be enhance as soon as you complete looking over this ebook.

(Yvette Marquardt)

VARIATION OF FRICTION DRAG IN WALL-BOUNDED FLOWS



Shaker Verlag Aug 2010, 2010. Taschenbuch. Book Condition: Neu. 208x149x10 mm. Neuware - One of today's major issues in the development of new fluid application, e.g., airplanes, turbo engines, and high speed trains, is to achieve a high efficiency at a low consumption of energy by reducing the fluid dynamical drag. Besides other options, the reduction of wall-shear stress in wall bounded flows, which determines, e.g., about 50% of the total drag of the flow field around aircraft, is a promising approach to increase the overall efficiency. In the current study the application of a surface structure consisting of tiny grooves aligned in the main flow direction, so-called riblets, on technical components such as compressor blades is investigated. Although the basic drag reducing effect of riblets in turbulent flows is well-known the impact of riblets on the skin friction under realistic flow conditions is still unclear. Therefore large-eddy simulations (LES) of riblet covered surfaces in flow states as occurring on technical components, namely turbulent adverse-pressure gradient flow and transitional flow, are performed. Since the drag reducing effect of a certain riblet surface is limited to a narrow range of flow parameters in the second part of the current work an active mean of drag reduction is investigated. A numerical simulation of a turbulent boundary layer flow over a transversal traveling surface wave realized by a wall-normal actuation of the surface is performed. The potential to reduce friction drag in turbulent flows turns out to be in the same order of magnitude for the actuated surface as for the riblet covered surface. However, the adaptation of the wall actuation to the actual flow parameters allows a reduction of friction drag at all operation points. 119 pp. Englisch.



Read Variation of Friction Drag in Wall-Bounded Flows Online Download PDF Variation of Friction Drag in Wall-Bounded Flows

See Also



Shadows Bright as Glass: The Remarkable Story of One Man's Journey from Brain Trauma to Artistic Triumph

Free Press. Hardcover. Book Condition: New. 1439143102 SHIPS WITHIN 24 HOURS!! (SAME BUSINESS DAY) GREAT BOOK!!.

Save ePub »



Anna's Fight for Hope: The Great Depression 1931 (Sisters in Time Series 20)

Barbour Publishing, Inc., 2004. Paperback. Book Condition: New. No Jacket. New paperback book copy of Anna's Fight for Hope: The Great Depression 1931 (Sisters in Time Series 20). Publisher recommended for ages 8 to 12...

Save ePub »



Sarah's New World: The Mayflower Adventure 1620 (Sisters in Time Series 1)

Barbour Publishing, Inc., 2004. Paperback. Book Condition: New. No Jacket. New paperback book copy of Sarah's New World: The Mayflower Adventure 1620 by Colleen L. Reece. Sisters in Time Series book 1. Christian stories for...

Save ePub »



Books for Kindergarteners: 2016 Children's Books (Bedtime Stories for Kids) (Free Animal Coloring Pictures for Kids)

2015. PAP. Book Condition: New. New Book. Delivered from our US warehouse in 10 to 14 business days. THIS BOOK IS PRINTED ON DEMAND. Established seller since 2000.

Save ePub »



hc] not to hurt the child's eyes the green read: big fairy 2 [New Genuine(Chinese Edition)

paperback. Book Condition: New. Ship out in 2 business day, And Fast shipping, Free Tracking number will be provided after the shipment. Paperback. Pub Date :2008-01-01 Pages: 95 Publisher: Jilin Art Shop Books all new book...

Save ePub »