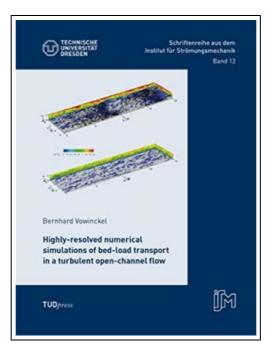
Highly-Resolved Numerical Simulations of Bed-Load Transport in a Turbulent Open-Channel Flow



Filesize: 4 MB

Reviews

This type of publication is every thing and helped me seeking ahead and much more. It usually fails to charge too much. It is extremely difficult to leave it before concluding, once you begin to read the book. (Juliet Mertz)

HIGHLY-RESOLVED NUMERICAL SIMULATIONS OF BED-LOAD TRANSPORT IN A TURBULENT OPEN-CHANNEL FLOW

CONNLOAD PDF

TUDpress Verlag der Wissenschaften GmbH, United States, 2015. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book ***** Print on Demand *****.Phase-resolving Direct Numerical Simulations of bed-load transport in a horizontal turbulent open-channel flow at small relative submergence are presented. The thesis provides a detailed study addressing the impact of the choice of collision model on the scenario of bed-load transport and presents statistical tools to identify and describe the key-mechanisms governing the fluid-particle interaction. The Double-Averaging Methodology is applied for the first time to the situation of mobile rough beds. This methodology provides a framework to convolute the data in such a way that the most prominent flow features are well described by a handy set of double-averaged (in time and space) quantities. The thesis further provides a systematic study elucidating in detail the impact of the key-parameters mobility and sediment supply on the pattern formation of large-scale particle clusters. This is done using a very large computational domain to allow bed-forms to evolve with minimal spatial constraints. It is found that a low transport rate is linked to streamwise oriented ridges, while a large sediment supply results in large-scale clusters that propagate in streamwise direction. A detailed description of fluid quantities links the developed particle patterns to the enhancement of turbulence. The large domain allows for a large number of independent erosion events, such that conditional averaging provides a very clear description of the processes involved for incipient particle motion. Furthermore, the detection of moving particle clusters as well as the investigation of their surrounding flow field is performed by an analysis using a moving frame coordinate system.

Read Highly-Resolved Numerical Simulations of Bed-Load Transport in a Turbulent Open-Channel Flow Online
Download PDF Highly-Resolved Numerical Simulations of Bed-Load Transport in a Turbulent Open-Channel Flow

Relevant Books

\rightarrow	

Two Treatises: The Pearle of the Gospell, and the Pilgrims Profession to Which Is Added a Glasse for Gentlewomen to Dresse Themselues By. by Thomas Taylor Preacher of Gods Word to the Towne of Reding. (1624-1625) Proquest, Eebo Editions, United States, 2010. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book

***** Print on Demand *****.EARLY HISTORY OF RELIGION. Imagine holding history in your hands. Now... Save Document

\mathbf{x}
~

Two Treatises: The Pearle of the Gospell, and the Pilgrims Profession to Which Is Added a Glasse for Gentlewomen to Dresse Themselues By. by Thomas Taylor Preacher of Gods Word to the Towne of Reding. (1625)

Proquest, Eebo Editions, United States, 2010. Paperback. Book Condition: New. 246 x 189 mm. Language: English Brand New Book ***** Print on Demand *****. EARLY HISTORY OF RELIGION. Imagine holding history in your hands. Now you...

Save Document

\rightarrow

Index to the Classified Subject Catalogue of the Buffalo Library; The Whole System Being Adopted from the Classification and Subject Index of Mr. Melvil Dewey, with Some Modifications.

Rarebooksclub.com, United States, 2013. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book ***** Print on Demand *****. This historic book may have numerous typos and missing text. Purchasers can usually... Save Document

\rightarrow

Kindergarten Culture in the Family and Kindergarten; A Complete Sketch of Froebel s System of Early Education, Adapted to American Institutions. for the Use of Mothers and Teachers

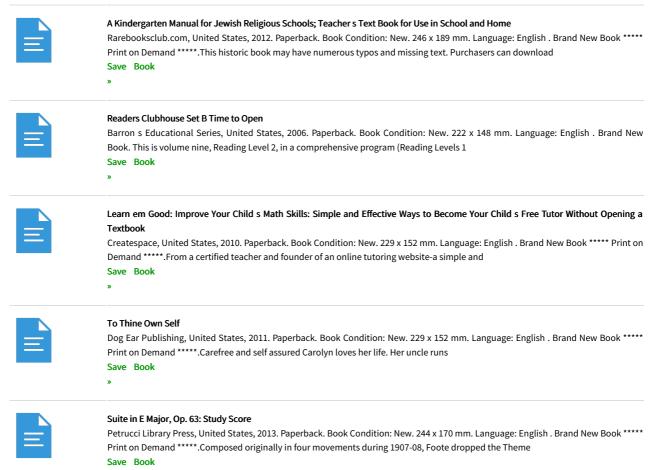
Rarebooksclub.com, United States, 2012. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book ***** Print on Demand *****.This historic book may have numerous typos and missing text. Purchasers can download... Save Document

\rightarrow

Variations on an Original Theme Enigma , Op. 36: Study Score

Petrucci Library Press, United States, 2013. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book ***** Print on Demand *****.Dedicated to my friends pictured within, Elgar s orchestral showpiece started...

Save Document



»