

[DOWNLOAD](#)

## An Isopycnal Numerical Model for the Simulation of Fluid Mud Dynamics

By Denise Wehr

Shaker Verlag Apr 2012, 2012. Taschenbuch. Condition: Neu. Neuware - The progressive extension and development of coastal waterways has led to an increase in siltation and formation of fluid mud in sections of estuarine shipping channels, ports and port approaches over the past decades. The need for a better understanding and a profound knowledge of fluid mud dynamics has increased so that it is necessary to develop new maintenance strategies and renaturation measures in estuaries as well as optimize existing ones. Numerical simulations contribute to the evaluation of such strategies. For that reason, the aim of this thesis is to enable the numerical simulation of fluid mud dynamics. Fluid mud forms by building up a structure of aggregates in regions in which there is an increasing accumulation of cohesive sediments. Although the water content of the high-concentration suspension can be very high, the flow behavior changes from Newtonian to non-Newtonian. However, most of the current established hydrodynamic numerical models solve the shallow water equations with a Newtonian assumption. A standard numerical model approach for the Reynolds-averaged Navier-Stokes equations is therefore extended in this thesis to cover the simulation of non-Newtonian behavior. The developments are based on an existing numerical model...



[READ ONLINE](#)

[ 4.11 MB ]

### Reviews

*Very good e-book and valuable one. It really is packed with knowledge and wisdom I am just very easily could possibly get a satisfaction of reading a created pdf.*

-- **Walton Haag**

*I actually started out reading this book. It can be packed with wisdom and knowledge I discovered this ebook from my dad and i suggested this book to understand.*

-- **Prof. Barney Harris**