عنوان مقاله:

NUMERICAL MODELLING OF WAVE-NON NEWTONIAN MUD INTERACTION USING INCOMPRESSIBLE
(SMOOTHED PARTICLE HYDRODYNAMICS (ISPH

محل انتشار:

نویسندگان:

Kourosh Hejazi - *K.N. Toosi University of Technology, Tehran, IRAN*

Mohsen Soltanpour - *K.N. Toosi University of Technology, Tehran, IRAN*

Abolfazl Aslani Kordkandi - *K.N. Toosi University of Technology, Tehran, IRAN*

خلاصه مقاله:

Attenuation of wave height while it propagates over muddy beds is a typical phenomenon and is of interest to coastal researchers. The dissipation of waves propagatingover muddy beds has been investigated theoretically and experimentally in several studies, but very few numerical model developments for simulation of the wave–mudinteraction have been reported in the literature. In this paper, incompressible smoothed particle hydrodynamics (ISPH) method has been deployed to simulate wave-nonNewtonian mud interaction. The SPH method overcomes limitations associated with mesh-based methods and provides a high degree of accuracy for the free surfaceand interface predictions. The projection method has been utilised for the solution of Navier-Stokes equations whereby the divergence-free velocity enforces theincompressibility of SPH.

کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا: