LES-DEM simulations of sediment transport

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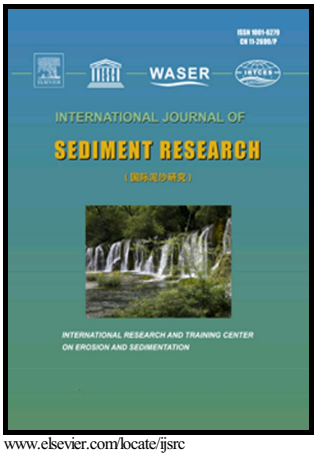

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ABSTRACT

In this work, a fully-coupled Computational Fluid Dynamics (CFD) model and Discrete Element Method (DEM) are used to simulate a unidirectional turbulent open-channel flow over the full range of sediment transport regimes. The fluid and particles are computed on separate grids using a dual-grid formulation to maintain consistency and avoid instability issues. The results of

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