



Abstract Details

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Corresponding Author : Prof. Ko-Fei Liu (kfliu@ntu.edu.tw)

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Title: Numerical modeling of debris flows in complicated geometry

Abstract:

We use the generalized Julien and Lan (1991) rheological model to develop a numerical program for simulating debris flows. The scheme is tested against analytical solutions and laboratory experiments with very good results. Application to the field also achieved good agreement compared with in-situ measurements. Debris flow around structure can also be modeled with reasonable result. The program can calculate the flow field, flow velocity, impact force on structure and the final deposition area. The result can be a reference to designer of counter measurements.

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Co-Authors

No.	Title	First Name	Family Name	Organization
1	Mr.	Yucharn	Hsu	National Taiwan University
2	Dr.	Ming-Tsung	Huang	Ching Yun University