Comparison between FLO-2D and RAMMS in debris-flow modelling: a case study in the Dolomites

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Abstract

This paper presents a comparison of the results obtained through the use of two numerical models for debris flow simulation. FLO-2D and RAMMS were used to carry out a back analysis of a well documented debris-flow event, which occurred on 27 July 2006 in the Dolomites (Fiames locality, Belluno, Italy). The performances of FLO-2D and RAMMS are tested in terms of adaptation degree to the observed field data.

Keywords: debris flow, numerical modelling, FLO-2D, RAMMS, Dolomites.