

2008 Fall Meeting
Search Results

Cite abstracts as **Author(s) (2008), Title, *Eos Trans. AGU*,
89(53), Fall Meet. Suppl., Abstract xxxxx-xx**

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ng23a-1118 and sc=ng

HR: 1340h

AN: **NG23A-1118**

TI: [Landslide Susceptibility Assessment of the Tahang River Catchment in northern Taiwan](#)

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AB: This study analyzed shallow landslide induced by the 2004 typhoon Aere at Tahang river catchment in northern Taiwan. Landslide inventories were interpreted from SPOT5 imageries and checked in the field. Landslide susceptibility factors including slope, slope aspect, slope roughness, terrain curvature, slope high, terrain wetness index were derived from a 10m resolution DEM. Lithology data were obtained from a 1:50000 geological map and NDVI produced from SPOT5 imageries. Rain gauge data were used to calculate rainfall intensity. Landslide data were divided into two parts randomly by object, one part was used to establish a susceptibility model and the other was used for validation. Discriminant analysis (DA), logistic regression (LR) and artificial neural network (ANN), were used in the susceptibility analysis. This study completed the susceptibility analysis and validation. The prediction rate curves indicate that the area under the curve (AUC) for three methods are 0.83, 0.86 and 0.88 for DA, LR and ANN, respectively. All of the three methods obtained stable and good results in interpreting landslides.

DE: 4468 Probability distributions, heavy and fat-tailed (3265)

SC: Nonlinear Geophysics [NG]

MN: 2008 Fall Meeting

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