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Large scale filed experiment on the landslide dam breaching

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Landslide dam breaching is the one of focus topics in the geophysical flows. The frequency of occurrence of landslide dam increases due to earthquake, climate change and mans activities in recent years. Once the dam breaks, it would trigger extreme flood downstream. A field experiment on landslide dam breach has been carried out on a small mountain river in Mianzhu, Sichuan Province, China from 23 November to 29 December, which aims to reveal impact of different diversion channel types on the dam breaching process as well as the resulting flood. The dam is of 4m high, 10~15m wide. the length of the dam crest is 5m, upstream downstream slopes of the dam are 1:2 and 1:5. Results show division channel can reduce the peak flood discharge obviously. The pilot vertical fall can trigger earlier back erosion and thus peak discharge appears earlier with smaller magnitude.