

[1]冯杭建,唐小明,周爱国.浙江省泥石流与降雨历时关系研究及应用检验[J].自然灾害学报,2013,01:159-168.

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## 浙江省泥石流与降雨历时关系研究及应用检验(PDF)

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Title: Study on relationship between rainfall duration and occurrence of debris flow in Zhejiang Province and its application examination

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关键词: [泥石流](#); [降雨历时](#); [台风期](#); [梅雨期](#); [前期有效雨量](#); [临界雨量](#); "云娜"台风

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摘要: 灾害发生与降雨关系的研究是泥石流预警预报研究的核心内容,传统的研究在影响泥石流发生的前期有效降雨历时的选择上存在较大的随意性和主观性。以浙江省已发生的193条泥石流为样本数据,基于降雨历时始算时间的三种定义,对泥石流发生与降雨历时之间的关系进行了统计分析,认为浙江省泥石流总体上与2 d短历时强降雨关系密切。其中,台风期泥石流主要由2 d降雨引发,影响泥石流发生的降雨历时一般不超过10 d;梅雨期泥石流主要由3 d降雨引发,影响泥石流发生的降雨历时一般不超过15 d。基于上述结论,进行了台风期泥石流临界雨量的计算,并选择"云娜"台风期间发生的18处沟谷泥石流作为检验样本进行检验,证明效果较为理想。

Abstract: It is essential to study the relationship between hazard occurrence and rainfall for debris flow early warning and prediction. In traditional research, it is comparatively arbitrary and subjective in selecting the rainfall duration for early effective rainfall calculation. In this study, the statistical analysis between the debris flow occurrence and rainfall duration was conducted based on 193 historical records of debris flows in Zhejiang Province through introducing three different definitions of rainfall duration. The results revealed that the occurrence of debris flow in Zhejiang Province is dominated by heavy 2d-rainfall. Particularly, the debris flow occurred in the typhoon season is mainly induced by 2d-rainfall, and the debris flow occurred in plum rain season is dominated by 3d-rainfall. It also revealed that rainfall duration that influence the debris flow

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occurrence is no more than 10 days in typhoon season, and no more than 15 days in plum rain duration. Totally 18 valley debris flows occurred in Yunna typhoon period were selected to validate the applicability of the above conclusion in critical rainfall calculation. The forecasting accuracy turned out to be acceptable.

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#### 参考文献/REFERENCES

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