

报告题目：西南山区高位远程滑坡及灾害链动力致灾机理研究

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摘要：近年来，受强烈地震、极端天气气候事件和人类活动等因素影响，我国西南峡谷区群死群伤性高位远程滑坡及链生灾害频发，如何预防或减轻其造成的危害成为当前亟须解决的课题。针对高位远程滑坡及灾害链动力致灾和风险评价等关键科学问题，我们利用地震台网数据、视频影像和地球物理探测等多源数据协同，校验确定数值分析模型和参数，实现了典型崩滑-碎屑流动力致灾全过程精准反演。在此基础上，对高位远程滑坡-冲击气浪和滑坡-堰塞坝-洪水演进灾害链动力致灾机理开展了深入分析，研究成果为高位远程滑坡及灾害链风险评价提供了技术支撑。

Dynamic Characteristics of Long-runout Landslides and Associated Chain Disasters in Mountainous Region of Southwest China

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Abstract: Strong earthquakes, extreme weather events and human activities have substantially increased the number of catastrophic long-runout landslides and associated chain disasters in high-altitude regions. How to prevent and mitigate disasters caused by such events is now an urgent problem. In this study, the seismic signal, UAV video and geophysical surveys were comprehensively performed to investigate the dynamic characteristics and deposits distribution of typical long-runout landslides, and provide valuable information for the calibration of numerical models and parameters. Subsequently, the whole runout processes of typical long-runout landslides were accurately simulated. Moreover, further in-depth research was performed on the landslide-induced air blast and landslide-barrier dam-flood propagation chain disaster. Our work will aid in the landslide risk assessment and the proposition of appropriate measures in high-altitude regions.