

Sarma法在加锚岩质高边坡安全稳定性评价分析中的应用

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摘要 根据Sarma法的基本思想, 考虑地震作用、地下裂隙水的影响以及岩石锚杆的支护效应, 建立了加锚岩体边坡稳定性分析的滑体计算模型, 并将该模型应用于紫坪铺水电站大型岩体高边坡工程, 进行了边坡安全稳定性评价分析。计算结果表明, 边坡安全系数随地下水位的升高和地震烈度的增强而减小, 且边坡安全系数因加锚而得到提高。因此, 高度重视地下裂隙水和地震作用对边坡稳定的影响以及考虑对边坡及时施锚是十分重要的。

关键词

[边坡工程](#); [滑体计算模型](#); [地震和地下裂隙水影响](#); [岩锚支护](#); [边坡安全稳定性评价](#)

分类号

APPLICATION OF SARMA METHOD TO STABILITY EVALUATION ANALYSIS OF A LARGE ANCHORED ROCKMASS SLOPE

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Abstract

Based on the basic idea of Sarma method, a sliding block computational model of stability analysis for an anchored rockmass slope is established after taking into consideration the action of earthquake and influence of underground jointed water as well as the supporting effect of rock-bolts. This model has been applied to stability analysis of a large anchored rockmass slope project of Zipingpu Hydropower Station. Computed results show that the safety factor of slope will decrease when the underground jointed water level and the intensity of earthquake increase; in addition, the safety factor of slope will increase after the slope is reinforced. So, it is very important to attach much weight to the influence of underground jointed water and earthquake on slope stability and to take the rock-bolt supporting for slope into account.

Key words [slope engineering](#); [sliding block computation model](#); [influence of earthquake and underground joint water](#); [supporting of rock-bolt](#); [safety stability evaluation for slope](#)

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