

## 库水位下降对滑坡体稳定性的影响

廖红建<sup>1, 2</sup>, 盛 谦<sup>2</sup>, 高石夯<sup>1</sup>, 许志平<sup>1</sup>

(1. 西安交通大学 土木工程系, 陕西 西安 710049; 2. 中国科学院 岩土力学重点实验室, 湖北 武汉 430071)

收稿日期 2004-10-19 修回日期 2004-11-15 网络版发布日期 2007-3-23 接受日期 2004-10-19

**摘要** 以三峡水利工程为背景, 针对长江三峡库区水位的周期性调节对库岸边坡稳定性可能产生的种种不利影响, 计算了在库水位下降期间, 滑坡体稳定性受库水位下降速度影响的变化情况。结合库水位下降期间不同渗透系数滑坡体的实际渗流场, 对滑坡体稳定性进行了数值计算分析, 得到了库区降水速度和渗透系数与边坡稳定性之间的变化规律, 对库区边坡稳定性的研究有一定的参考价值。

**关键词** [工程地质](#); [库水位](#); [滑坡体](#); [稳定性](#); [渗透系数](#)

分类号

## INFLUENCE OF DRAWDOWN OF RESERVOIR WATER LEVEL ON LANDSLIDE STABILITY

LIAO Hong-jian<sup>1, 2</sup>, SHENG Qian<sup>2</sup>, GAO Shi-hang<sup>1</sup>, XU Zhi-ping<sup>1</sup>

(1. Department of Civil Engineering, Xi'an Jiaotong University, Xi'an 710049, China; 2. Key Laboratory of Rock and Soil Mechanics, Institute of Rock and Soil Mechanics, Chinese Academy of Sciences, Wuhan 430071, China)

### Abstract

The reservoir water level in the Yangtze River Three Gorges Reservoir area is adjusted periodically, so the stability of the landslides on both banks is affected seriously. Under the background of the Three Gorges irrigation projects, the influence of drawdown speed of water level on the stability of landslide was analyzed. The variation of the landslide stability at different time during water level drawdown was analyzed considering the actual seepage fields. Through numerical calculation, the relationships of the landslide stability, the seepage coefficient and drawdown speed were obtained. It has some referential values for the study on the sliding stability of slope.

**Key words** [engineering geology](#); [reservoir water level](#); [landslide](#); [stability](#); [permeability coefficient](#)

DOI:

通讯作者

### 扩展功能

#### 本文信息

- ▶ [Supporting info](#)
- ▶ [PDF\(282KB\)](#)
- ▶ [\[HTML全文\]\(0KB\)](#)
- ▶ [参考文献](#)

#### 服务与反馈

- ▶ [把本文推荐给朋友](#)
- ▶ [加入我的书架](#)
- ▶ [加入引用管理器](#)
- ▶ [复制索引](#)
- ▶ [Email Alert](#)
- ▶ [文章反馈](#)
- ▶ [浏览反馈信息](#)

#### 相关信息

- ▶ [本刊中 包含 “工程地质; 库水位; 滑坡体; 稳定性; 渗透系数” 的相关文章](#)
- ▶ 本文作者相关文章

- [廖红建](#)
- 
- [盛 谦](#)
- [高石夯](#)
- [许志平](#)