

[1]曹留伟,刘曙光,钟桂辉.基于结构及人身安全的住宅建筑洪水破坏分析[J].自然灾害学报,2013,01:67-74.

CAO Liuwei,LIU Shuguang,ZHONG Guihui.Analysis of residential building failure under flood action based on building and human life safety[J].,2013,01:67-74.

[点击复制](#)

基于结构及人身安全的住宅建筑洪水破坏分析(PDF)

《自然灾害学报》[ISSN:/CN:23-1324/X] 期数: 2013年01期 页码: 67-74 栏目: 出版日期: 2013-07-18

Title: Analysis of residential building failure under flood action based on building and human life safety

作者: [曹留伟](#); [刘曙光](#); [钟桂辉](#)
同济大学 土木工程学院,上海 200092

Author(s): [CAO Liuwei](#); [LIU Shuguang](#); [ZHONG Guihui](#)
College of Civil Engineering, Tongji University, Shanghai 200092,China

关键词: [洪水荷载](#); [荷载组合](#); [破坏模型](#); [住宅建筑](#)

Keywords: [flood loads](#); [loading combinations](#); [failure model](#); [residential building](#)

分类号: TV873

DOI: -

文献标识码: -

摘要: 中国是洪灾多发的国家,洪水灾害造成的经济损失居各类自然灾害之首。同时,洪水灾害造成了大量的房屋倒塌,对人民的生命安全、生产活动多带来了严重的威胁和影响。

《建筑结构荷载规范》中除考虑常规荷载外,还考虑了雪荷载和风荷载,但没有考虑洪水荷载对建筑物的作用。综合国内外的研究现状和规范,从洪水荷载对建筑物的作用机理以及建筑物所处地理环境的不同,对洪水荷载的作用方式进行了归类,总结和归纳了洪水荷载的主要形式、大小和洪水荷载组合。同时提出了综合考虑人身安全及建筑物结构安全的住宅建筑洪水破坏模型研究方法。该研究方法为进一步研究住宅结构物在洪水荷载作用下的破坏机理及住宅结构防灾减灾提供参考。

Abstract: Flood disasters occur frequently in China. The economic losses caused by floods are in the first place among all types of natural disasters. Floods collapse a large number of houses, endanger human life and impact on production activities. Load Code for the Design of Building Structures considers normal loads as well as snow loads and wind loads. However, flood loads on the buildings are not included. On the basis of codes and research status at home and abroad, this paper summarized the main types of flood loads, loading condition and loading combinations based on the flood load mechanisms on the buildings and building geographical locations. The paper also proposed a research method of residential building failure model under flood actions on the basis of building and human life safety. The work in the paper provides a reference to further study of the residential structure failure mechanisms under the flood actions and residential building disaster prevention and mitigation.

[导航/NAVIGATE](#)

[本期目录/Table of Contents](#)

[下一篇/Next Article](#)

[上一篇/Previous Article](#)

[工具/TOOLS](#)

[引用本文的文章/References](#)

[下载 PDF/Download PDF\(1949KB\)](#)

[立即打印本文/Print Now](#)

[推荐给朋友/Recommend](#)

[统计/STATISTICS](#)

[摘要浏览/Viewed](#) 284

[全文下载/Downloads](#) 160

[评论/Comments](#)



-

备注/Memo: 收稿日期:2012-3-2;改回日期:2012-5-28。

基金项目:"十一五"国家科技支撑计划重大项目(2008BAJ08B14);科技部科技基础性工作专项重点项目(2007FY110300-03)

作者简介:曹留伟(1982-),男,博士研究生,主要从事结构防灾减灾研究.E-mail:caoliuwei0510@sina.com

通讯作者:刘曙光,教授.E-mail:liusgliu@tongji.edu.cn

更新日期/Last Update: 1900-01-01