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## 汶川地震局部地形对地震动的影响(PDF)

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Title: Influence of local topography on seismic ground motion in Wenchuan earthquake

作者: [张建毅<sup>1; 2</sup>](#); [薄景山<sup>1; 2</sup>](#); [王振宇<sup>1; 2</sup>](#); [林玮<sup>1</sup>](#); [卢滔<sup>1</sup>](#)

1. 防灾科技学院, 河北 三河 065201;
2. 中国地震局工程力学研究所, 黑龙江 哈尔滨 150080

Author(s): [ZHANG Jianyi<sup>1; 2</sup>](#); [BO Jingshan<sup>1; 2</sup>](#); [WANG Zhenyu<sup>1; 2</sup>](#); [LIN Wei<sup>1</sup>](#); [LU Tao<sup>1</sup>](#)

1. Institute of Disaster Prevention Science and Technology, Sanhe 065201, China;
2. Institute of Engineering Mechanics, China Earthquake Administration, Harbin 150080, China

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摘要: 关于局部地形对地震动的影响,一直是地震工程学的研究热点。选取汶川地震中自贡地形台有强震记录的山脊地形和典型地震灾害的北川县城河谷地形进行了强震观测记录、规范方法和数值模拟下的地形放大效应分析,结果表明:(1)规范法基本上可满足一般工程场地的要求;(2)对人员密集居住的高度大于60 m的较陡地形,建议应进行二维(三维)数值模拟下的地形效应分析。这为规范的修订提供了一些基础资料。

Abstract: The influence of local topography on the seismic ground motion has been the hot spot of the earthquake engineering. Selecting the ridge topography with Wenchuan earthquake strong motion records in Zigong topographic array and Beichuan county river valley with typical earthquake disaster, this article analyzes the topographic amplification effect through earthquake observation records, code specifications and numerical simulation. Results show that: (1) Code specifications could basically meet the requirements of general project sites; (2) two-dimensional or three-dimensional numerical simulation should be performed on densely populated area higher than 60m and steep topography for topographic effect analysis. The conclusions could provide some basic data for code specification amendment.

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[本期目录/Table of Contents](#)

[下一篇/Next Article](#)

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作者简介:张建毅(1981-),男,博士研究生,主要从事岩土地震工程研究.E-mail:b532@163.com

通讯作者:薄景山,研究员,博士生导师.E-mail:bojingshan@163.com

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