

# 地震工程学报

DIZHEN GONGCHENG XUEBAO

第 40 卷 第 6 期 2018 年 12 月

## 目 次

### 土力学及土动力学

综述	第 16 届欧洲地震工程大会: 岩土地震工程研究进展与动向综述	.....
.....	王兰民, 夏 坤, 刘 琪, 王 谦, 贾 鹏, 柴少峰	(1133)
多年冻土区青藏铁路列车荷载作用下路基振动响应研究	.....	
.....	董连成, 徐 楷, 师黎静, 胡新福, 高德领	(1153)
应力、应变控制下压实黄土动力特性研究	.....	胡志平, 王 强, 张雨禾, 魏雪妮, 王 瑞 (1161)
黄土高填方场地地震动参数特性分析	.....	来春景, 朱彦鹏, 王春青, 马天忠 (1168)
地震反应分析中输入界面的选取对地表地震动参数的影响	.....	方 怡, 吕悦军, 彭艳菊, 陈国兴 (1174)
筒型桩靴在饱和砂土中的贯入阻力研究	.....	吴曲楠, 刘 润, 张海洋, 王宇飞 (1183)
岷县—漳县 6.6 级地震极震区场地覆盖层厚度探测及三维地形模型建立	.....	
.....	李 璐, 吴志坚, 李瑞宽, 赵 涛	(1191)
强震作用下不同处理方式黄土地基抗震陷性能评价	.....	许书雅, 王 平, 王 峻, 王会娟, 于一帆 (1198)

### 建筑结构抗震

基于新《电力设施抗震设计规范》的地震动随机模型参数研究	.....	田 利, 高国栋, 盖 霞 (1206)
考虑锈蚀的钢框架柱地震损伤模型研究	.....	郑山锁, 石 磊, 周 炎, 张秋石, 朱揽奇 (1211)
远场长周期地震下高层建筑的地震损伤模型研究	.....	丁 江, 刘文治, 方传斌 (1217)
饱和土体-地下综合管廊结构地震响应分析	.....	蒋录珍, 李双飞, 石文倩, 安军海, 陈艳华 (1224)
考虑抗震性约束的建筑空间结构优化	.....	徐 莉, 胡 宏 (1231)
动载下无筋砌体墙的应力场及裂隙分布	.....	于庆峰, 胡 敏 (1236)
行波激励下考虑结构碰撞的非规则桥梁抗震性能研究	.....	
.....	闫 磊, 李青宁, 赵花静, 申纪伟, 李林燕	(1243)
超限高层建筑结构抗震设计加强措施和建议——以某超限高层建筑为例	.....	
.....	卢一麟, 尹凤霞, 郭献洲	(1252)
基于不同地面特性的混凝土框架结构的抗震性能评估	.....	张丹丽, 谢 强 (1259)
用于应急避险的城市绿地标志性景观塔抗震设计	.....	王 晴 (1266)
地震带城市规划模型设计与仿真	.....	李清亚 (1272)
丝绸之路明长城遗址的病害性态研究	.....	
.....	唐洪敏, 石玉成, 刘 琪, 卢育霞, 郭 鹏, 魏 来, 李桐林	(1278)

## 地震科学研究

- 鲜水河断裂带南东段康定—色拉哈断裂的浅层地球物理勘探 ..... 刘 薇, 李大虎, 梁明剑 (1287)  
基于一致可靠度的地震动记录样本容量确定方法研究 ..... 陈 波, 温增平 (1295)  
福建仙游震群序列发震构造分析研究 ..... 秦双龙, 邱 毅 (1306)  
山东长岛地区地震波非弹性衰减 Q 值、场地响应及震源参数研究 .....  
..... 周少辉, 曲均浩, 苗庆杰, 李 铂, 郭宗斌, 刘方斌 (1312)  
2017 年四川九寨沟 7.0 级地震前地震应变场分析 ..... 罗国富, 刘忠旺, 丁凤和, 马禾青, 杨明芝 (1322)  
云计算环境下震前震源异常次声波自动识别方法 ..... 乔红丽, 张常在 (1331)  
利用 2014 年云南地震验证与研究四川地震预警快速震级估算模型 .....  
..... 李鸿杰, 樊惠惠, 胡蓉平, 韩嘉怡, 张建经 (1337)

## 震灾应急及其他

- 大数据分析背景下地震后紧急物流资源调度模型设计 ..... 陈 涵, 林 勇 (1343)  
基于 ARIO 模型的震后重建施工现场安全管理方法 ..... 顾连胜 (1350)  
基于视觉图像的震区人员搜救方法研究 ..... 胡宇航, 张 峰 (1356)  
基于 GIS 的震后修复建筑物空间分布格网化方法研究 ..... 罗 磊, 汪 斌 (1362)  
突发地震灾害中无人驾驶救援车伺服控制系统研究 ..... 岳 光, 潘玉田 (1366)  
基于模糊数学的震后建筑火灾危险性评估模型研究 ..... 张 文 (1372)  
基于 EM 算法的运行模态参数识别 ..... 张 康, 施袁锋 (1378)

## 仪器研制

- 基于 GPS 的人工地震测深零时仪研制 ..... 李从庆, 滕云田, 孙 鸿, 祝彦杭, 郭 磊 (1384)  
高灵敏度电子地震预警器故障检测方法研究 ..... 温宏愿 (1389)

 专稿 首次中国地震预报探索及海原断裂发现 60 周年 ..... 本刊编辑部 (1396)

# CHINA EARTHQUAKE ENGINEERING JOURNAL

## Vol.40 No.6 December, 2018

### CONTENTS

A Review of Research Trends and Progress in Geotechnical Earthquake Engineering: the 16 <sup>th</sup> European Conference on Earthquake Engineering .....	WANG Lanmin, XIA Kun, LIU Kun, WANG Qian, JIA Peng, CHAI Shaofeng (1133)
Vibration Response Analysis of Embankments in Permafrost Regions along the Qinghai—Tibet Railway Subjected to Train Loads .....	DONG Liancheng, XU Zhen, SHI Lijing, HU Xinfu, GAO Deling (1153)
Dynamic Characteristics of Compacted Loess under Controlled-stress and Controlled-strain Modes .....	HU Zhiping, WANG Qiang, ZHANG Yuhe, WEI Xueni, WANG Rui (1161)
Characteristics of Ground Motion Parameters of Loess-high Filling Sites .....	LAI Chunjing, ZHU Yanpeng, WANG Chunqing, MA Tianzhong (1168)
Influence of Input Interface Selection on Ground Motion Parameters in Seismic Response Analyses .....	FANG Yi, LÜ Yuejun, PENG Yanju, CHEN Guoxing (1174)
Bucket Spudcan Penetration Resistance in Saturated Sand .....	WU Qu'nan, LIU Run, ZHANG Haiyang, WANG Yufei (1183)
Survey of Overburden Thickness of Sites and Establishment of Three-Dimensional Terrain Model in the Meizoseismal Area of Minxian—Zhangxian $M_S$ 6.6 Earthquake .....	LI Lu, WU Zhijian, LI Ruikuan, ZHAO Tao (1191)
Evaluation of Aseismic Subsidence of Loess Foundation with Different Ground Treatments under Strong Earthquake .....	XU Shuya, WANG Ping, WANG Jun, WANG Huijuan, YU Yifan (1198)
Parametric Study on the Seismic Random Vibration Model Based on the New “Code for Seismic Design of Electrical Installations” .....	TIAN Li, GAO Guodong, GAI Xia (1206)
Research on a Seismic Damage Model of Steel Frame Columns Considering Corrosion .....	ZHENG Shansuo, SHI Lei, ZHOU Yan, ZHANG Qiushi, ZHU Lanqi (1211)
Seismic Damage Model of High-rise Buildings under Far-field Long-period Ground Motions .....	DING Jiang, LIU Wenzhi, FANG Chuanbin (1217)
Seismic Response of Underground Utility Tunnel Structures in Saturated Soils .....	JIANG Luzhen, LI Shuangfei, SHI Wengqian, AN Junhai, CHEN Yanhua (1224)
Optimization of Spatial Building Structures Considering Seismic Constraints .....	XU Li, HU Hong (1231)
Stress Field and Fracture Distribution of Unreinforced Masonry Walls under Dynamic Loading .....	YU Qingfeng, HU Min (1236)
Seismic Performance of Irregular Bridges Considering Structural Pounding under Traveling Wave Excitation .....	YAN Lei, LI Qingning, ZHAO Huajing, SHEN Jiwei, LI Linyan (1243)
Strengthening Measures and Suggestions for Seismic Design of Out-of-code High-rise Buildings: A Case Study .....	LU Yilin, YIN Fengxia, GUO Xianzhou (1252)
Seismic Performance Evaluation of Concrete Frame Structures Based on Different Ground Characteristics .....	ZHANG Danli, XIE Qiang (1259)
Seismic Design of Symbolic Landscape Tower in Urban Green Spaces for Emergency Avoidance .....	WANG Qing (1266)

Design and Simulation of a Model for Seismic Belt Urban Planning .....	<i>LI Qingya</i> (1272)
Study on the Disease Behavior of the Great Wall of the Ming Dynasty along the Silk Road .....	<i>TANG Hongmin, SHI Yucheng, LIU Kun, LU Yuxia, GUO Peng, WEI Lai, LI Tonglin</i> (1278)
Detection of the Kangding—Selaha Fault in the Southeast Section of the Xianshuihe Fault Zone Using Shallow Geophysical Method .....	<i>LIU Wei, LI Dahu, LIANG Mingjian</i> (1287)
Sample Size Determination for Strong Ground Motion Inputs Based on Reliability—Consistent Method .....	<i>CHEN Bo, WEN Zengping</i> (1295)
Analysis of the Seismogenic Structure of the Xianyou Earthquake Swarm Sequence in Fujian Province .....	<i>QIN Shuanglong, QIU Yi</i> (1306)
Inelastic Attenuation Q Value, Site Response, and Seismic Source Parameters in Changdao Region, Shandong .....	<i>ZHOU Shaohui, QU Junhao, MIAO Qingjie, LI Bo, GUO Zongbin, LIU Fangbin</i> (1312)
Research on the Seismic Strain Field prior to the 2017 Jiuzhaigou, Sichuan $M_{\text{S}}7.0$ Earthquake .....	<i>LUO Guofu, LIU Zhongwang, DING Fenghe, MA Heqing, YANG Mingzhi</i> (1322)
Automatic Identification of Anomalous Infrasonic Waves prior to Earthquake in Cloud Computing Environment .....	<i>QIAO Hongli, ZHANG Changzai</i> (1331)
Research and Validation of Rapid Magnitude Estimation Model for Early Earthquake Warning in the Sichuan Region Using Events from the Yunnan Region, 2014 .....	<i>LI Hongjie, FAN Huihui, HU Rongping, HAN Jiayi, ZHANG Jianjing</i> (1337)
Design of a Model for the Scheduling of Emergency Logistics Resources after Earthquakes against the Background of Big Data Analysis .....	<i>CHEN Tian, LIN Yong</i> (1343)
Construction Site Safety Management Method Based on ARIO Model for Post-earthquake Reconstruction .....	<i>GU Liansheng</i> (1350)
Research on Personnel Search-and-rescue Method in Earthquake Area Based on Visual Imagery .....	<i>HU Yuhang, ZHANG Feng</i> (1356)
GIS-based Gridding Method for Spatial Distribution of Post-earthquake Repaired Buildings ...	<i>LUO Lei, WANG Bin</i> (1362)
On the Servo Control System of Unmanned Rescue Vehicle in Sudden Earthquake Disasters .....	<i>YUE Guang, PAN Yutian</i> (1366)
A Model of Fire Risk Assessment of Post-earthquake Buildings Based on Fuzzy Mathematics .....	<i>ZHANG Wen</i> (1372)
Operational Modal Parameter Identification Using the Expectation Maximization Algorithm .....	<i>ZHANG Kang, SHI Yuanfeng</i> (1378)
Development of a Clock Device for Artificial Seismic Sounding Based on GPS .....	<i>LI Congqing, TENG Yuntian, SUN Hong, ZHU Yanhang, GUO Lei</i> (1384)
A New Fault Detection Method for High-sensitivity Electronic Early-warning Device .....	<i>WEN Hongyuan</i> (1389)
60th Anniversary of the First Earthquake Prediction in China and the Discovery of Haiyuan Fault .....	<i>Editorial Department of China Earthquake Engineering Journal</i> (1396)