

西北地震学报 2002 年 24 卷总目次

第1期

- 新青 8.1 级地震前卫星热红外异常 张元生, 沈文荣, 徐辉 (1)
数字化台网的近震震相自动识别 朱元清, 佟玉霞, 于海英, 等 (5)
F-K 分析在上海地震台阵建设中的应用 佟玉霞, 朱元清 (13)
地形变场与现代地壳垂直运动及地震活动关系初探(I)——地形变场的计算方法和物理意义 郭维栋, 汤懋苍 (21)
兰州马衔山北缘断裂带古地震初步研究 袁道阳, 贾亚会, 才树华, 等 (27)
计算条件对 Hurst 指数稳定性影响分析 赵翠萍, 王海涛 (34)
新疆黑孜跨断层形变测量资料异常分析 蒋靖祥, 尹光华, 温和平, 等 (42)
加卸载响应比在震后趋势估计和震前中短期预测中的应用 李佐唐, 何少林, 王先, 等 (49)
天祝大地电场异常与 1995 年永登 5.8, 1996 年天祝 5.4 级地震 赵和云, 阮爱国, 扬荣, 等 (56)
用大地电磁法研究构造走向及维性特征 杨长福, 林长佑 (65)
大地电磁地震前兆多参量综合分析 王书明, 林长佑, 陈军营, 等 (72)
波形拟合法在人工挖孔扩底桩承载力测试中的应用 吕芝全, 潘纪顺, 刘长来, 等 (78)
GIS 技术应用于城市防震减灾工作 宋俊高, 朱元清 (85)
澄江地震的后续丘北 6.5 级地震研究 徐彦 (92)

第2期

- 地形等高线的分形特征及其动力学含义 李锰, 朱令人 (97)
上地幔各向异性的反演方法 阮爱国, 王椿镛 (104)
基于高温高压岩石破裂实验结果对中强地震前震中附近区域部分地震学现象的初步解释
蒋海昆, 张流, 周永胜, 等 (113)
击实黄土孔压增长及循环软化特性试验研究 余跃心, 刘汉龙, 高玉峰, 等 (123)
黄土的震陷性与其微结构特征的关系研究 石玉成, 李兰, 刘红政 (129)
饱和黄土液化的孔隙微结构特征 刘红政, 王兰民 (135)
兰州地区环境污染对五泉山水化学动态影响的初步研究 潘树新, 陈兰庆, 钟心, 等 (140)
泾阳 4.8 级地震的构造背景 王卫东 (145)
新疆南天山西段地震波参数前兆识别预报指标及效能评价 王筱荣 (150)
菏泽 M_s 5.9 地震前后地震前兆综合加权信息量的变化 张昭栋, 刘庆国, 张华 (157)
宁夏及邻近地区震源机制解特征 赵知军, 刘秀景, 康凌燕 (162)
地震空区及条带附近地震破裂特征的震例研究 王金周, 刘文龙, 陈宇卫, 等 (167)
豫 01 井地下水位模糊分维值的变化与地震的关系 郭德科, 吴学瑜, 赵欣荣 (174)
陕西数字地震台网的监测能力 孟智民, 王卫东, 李大伟 (178)
短文
新疆尼勒克 1812 年地震断层构造特征 尹光华, 蒋靖祥, 张勇, 等 (183)
玛曲地区地震活动特征及记录波形特征 张昱, 巴志平, 王先, 等 (187)
研究简讯
2002 年厄尔尼诺事件的天文条件 杨学祥, 陈震, 乔洪源 (190)

第3期

- 非均匀半无限介质中振荡电偶极子地表电场的数值模拟 韩德胜 赵和云 (193)
 新疆伽师及邻近地区现今地壳形变的 GPS 监测与研究 王晓强, 王琪, 程瑞忠, 等 (199)
 有限元分析方法在黄土地基震陷预测中的应用 张冬丽, 王兰民, 王玉华 (208)
 土体中的第四纪断层结构面特征及其地震和岩土工程意义 蒋建平, 章杨松, 高广远, 等 (215)
 BP 神经网络在工程岩体质量分级中的应用研究 李强 (220)
 包代河断裂古地震初步研究 董治平, 何文贵 戴华光 (225)
 鄂尔多斯块体周缘强震活动时空特征及地震危险性分析 曹井泉 (230)
 天祝—古浪 5.4 级地震震源机制和发震断层以及海原西断裂大震危险性讨论 李亚荣, 朱新运 (236)
 青藏块体 7 级地震相互关系研究初步 杨立明, 徐辉 (241)
 江苏及邻区地震频次的 Hurst 指数分析 李强, 徐桂明 (247)
 深井水氡主要干扰因素及映震效能分析 王志高 (251)
 深井水位气压效率和相关系数在中强地震前的变化特征 耿杰, 周斌, 张昭栋 (257)
 山西水 2 井和岳 42 井水位记震能力分析 张子广, 张素欣, 郑云贞, 等 (262)
 宁夏及邻区 5 级以上地震前中等地震活动增强特征研究 任雪梅, 马禾青, 赵知军, 等 (267)
 2001 年 7 月 11 日肃南 5.3 级地震前兆异常与地震序列特征 肖丽珠, 刘小凤, 郑卫平 (273)
争鸣园地
 《毕奥理论中 3 个基本参数的显式解》一文中的真正错误 刘旭 (278)
短文
 河南及邻区地震的震源机制 谢智, 刘尧兴, 胡卫建, 等 (283)
研究简讯
 海洋中和海洋边缘的巨震是调节气候的恒温器之一 郭增建 (287)

第4期

- 用 Occam 法及广义逆法对兰州地区 MT 资料的一维反演解释 杨长福, 林长佑, 陈军营, 等 (289)
 基于遗传算法的地震短期综合预报分类系统研究 李莹甄, 王海涛, 龙海英, 等 (295)
 饱和度对波在土层交界面的反射、透射系数的影响 李伟华 (303)
 中国西南地区地震活动数值模拟的初步研究 陈化然, 张杰卿, 董洪军, 等 (310)
 使用人工神经网络进行我国大陆强震时间序列预测 王婧, 谢端, 宋先月, 等 (315)
 宁夏沙坡头黄河大弯曲形成时代的讨论 冯希杰, 师亚芹 (320)
 上海地震台阵标定及结果分析 任隽, 朱元清, 秦浩文 (325)
 邯连山地震带地震活动性增强现象研究 程建武, 杨立明, 王振亚 (330)
 磁暴月相二倍法的计算发震日期与全球 $M_s \geq 7.5$ 大地震的对应关系 沈宗丕, 徐道一, 张晓东, 等 (335)
 新疆竖直摆倾斜仪的观测精度与震兆异常 杨又陵, 裴宏达, 徐道尊, 等 (340)
 宁夏及邻区一年尺度中强地震综合预测方案研究 马禾青, 赵卫明, 卫定军 (346)
 强夯施工地震效应测试与分析 任锡泰 (352)
 井水位气压效率 b 值动态响应的断层—前兆场主应力组合模式 卜凡泉, 杨燕 (356)
综述
 兰州数字遥测地震台网的建设 何少林, 张桂花, 赵新民, 等 (361)
短文
 厄尔尼诺现象的构造基础与激发因素 杨学祥 (367)
 数字遥测地震台网地震速报中文平台 赵建和, 凌学书, 廖诗容 (371)
 四川康定—雅江 $M_s 6.0$ 地震前武都地震台观测资料的前兆异常 高曙德, 苏永刚, 高原, 等 (374)
研究简讯
 兰州刘家峡古象化石的发现 刘百篪, 刘小凤, 赵振明, 等 (377)
 2000 年 6 月 6 日甘肃景泰 5.9 级地震震源机制解 刘旭雷 (379)

NORTHWESTERN SEISMOLOGICAL JOURNAL

Vol. 24, 2002 CONTENTS

No. 1

Satellite Thermal Infrared Anomaly before the Xinjiang-Qinghai Border $M_{\text{S}}8.1$ Earthquake	ZHANG Yuan-sheng, SHEN Wen-rong, XU Hui (4)
Automatic Recognition of Seismic Phases of Regional Earthquake	ZHU Yuan-qing, TONG Yu-xia, YU Hai-ying, et al. (12)
The Application of F-K Analysis in Construction of Shanghai Seismic Array	TONG Yu-xia, ZHU Yuan-qing (26)
Study on the Earth Deformation Field and Its Relation with Crustal Vertical Movement and Earthquake Crustal Vertical Movement and Earthquake (I) —— Numerical expression and physical meaning of deformation field	GUO Wei-dong, TANG Mao-cang (26)
A Preliminary Study on Palaeoearthquake Events of the Northern Margin Active Fault Zone of Maxian Mt. in Lanzhou Area	YUAN Dao-yang, JIA Ya-hui, CAI Shu-hua, et al. (33)
Analyzing the Effect on Hurst Exponent Stability from Calculational Conditions	ZHAO Cui-ping, WANG Hai-tao (41)
Study on Abnormality Characteristics of Cross-fault Measurement on Heizi Fault	JIANG Jing-xiang, YIN Guang-hua, WEN He-ping, et al. (48)
The Application of the Load/Unload Response Ratio for Trend Prediction before and after the Medium-strong Earthquakes	LI Zuo-tang, HE Shao-lin, WANG Xian, et al. (55)
The Geoelectric Field Anomaly of Tianzhu and Relationship with Yongdeng Earthquake ($M_{\text{S}}5.8$) in 1995 and Tianzhu Earthquake ($M_{\text{S}}5.4$) in 1996	ZHAO He-yun, RUAN Ai-guo, YANG Rong, et al. (64)
The Study on Structural Strike and Dimensional Character Using Magnetotelluric Method	YANG Chang-fu, LIN Chang-you (71)
The Multiple Parameters Comprehensive Analysis Method of MT Earthquake Precursor	WANG Shu-ming, LIN Chang-you, CHEN Jun-ying, et al. (77)
Application of the Waveform Fitting Method in Determining Bearing Capacity of Artificial Excavated Bellied Pile	Lu Zhi-quan, Pan Ji-shun, Liu Chang-lai, et al. (84)
Application of GIS Technology to Urban Earthquake Prevention and Disaster Reduction	SONG Jun-gao, ZHU Yuan-qing (91)
Study on Qubei $M_{\text{S}}5.5$ Earthquake as the Succeed Event after the Chengjiang	XU Yang (96)

No. 2

Fractal Characteristics of Topographic Isoline and Dynamic Interpretation	LI Meng, ZHU Ling-ren (103)
The Inversion Methods of the Upper Mantle Anisotropy	RUAN Ai-guo, WANG Chun-yong (112)
Primary Explanation on Some Seismic Phenomena around the Epicenter Area before Strong and Moderate Earthquake	
Based on the HT-HP Rock Failure Experimental Results	JIANG Hai-kun, ZHANG Liu, ZHOU Yong-sheng, et al. (122)
Study on Pore-water Pressure Mode and Cyclic Softening of Saturated Compacted Loess	SHE Yue-xin, LIU Han-long, GAO Yu-feng, et al. (128)
Study on the Relation of Loess Seismic Subsidence and Its Microstructure Characters	SHI Yu-deng, LI Lan, LIU Hong-mai (134)
Study on the Liquefaction Mechanism and Pore Microstructure of Saturated Loess	LIU Hong-mei, Wang Lan-min (139)
A Preliminary Study on the Environment Pollution in Lanzhou Area Influence of to Dynamic Behavior of Hydrogeo	

Chemistry in Wuquanshan Spring	PAN Shu-xin, CHEN Lan-qing, ZHONG Xin, et al. (144)
Tectonic Background of Jingyang M_S 4.8 Earthquake	WANG Wei-dong (149)
Precursor Recognition and Prediction Indexes for the Parameter Anomaly of Seismic Wave for Western of South Tianshan in Xinjiang and Evaluation for Their Prediction Efficiency	WANG Xiao-rong (156)
Variation of Comprehensive Weighted Information Content of Seismic Precursors before and after Heze M_S 5.9 Earthquake	ZHANG Zhao-dong, LIU Qing-guo, ZHANG Hua (161)
Features of Focal-mechanism Solutions in Ningxia and Its Neighboring Region	ZHAO Zhijun, LIU Xitaijing, KANG Ling-yan (173)
Study on Three Earthquake Cases for Fracture Feature of Moderate and Small Shocks Near Seismic Belts and Gaps	WANG Jing-zhou, LIU Wen-long, CHEN Yu-wei, et al. (173)
Relationship between Variation of the Fuzzy Fractal Value of the Underground Water Level in Yu-01 Well and Earthquake	GUO De-ke, WU Xue-yu, ZHAO Xin-rong (177)
Detectability of Shaanxi Digital Seismic Network	MENG Zhi-min, WANG Wei-dong, LI Dai-wai (182)
Research Report in Brief	
The Character of Seismic Fault of 1812 Nieleke Earthquake	YIN Guang-hua, JIANG Jing-xiang, ZHANG Yong, et al. (186)
The Characteristics of Seismicity and Recorded Waveform in Maqu Region	ZHANG Yu, BA Zhi-ping, WANG Xian, et al. (189)
Research Note	
The Astronomical Condition of El Nino in 2002	YANG Xue-xiang, CHEN Zhen, QIAO Qi-yuan (192)

No. 3

Numerical Simulation of Geoelectrical Field Response to Oscillating Dipole Source in Heterogeneous Crust	HAN De-sheng, ZHAO He-yun (291)
GPS Monitoring and Study on Recent Crustal Deformation in Jiashi and Its Adjacent Region in Xinjiang China	WANG Xiao-qiang, WANG Qi, CHENG Rui-zhong, et al. (207)
The Application of the FEM in the Prediction of Seismic Subsidence of Loess Ground	ZHANG Dong-li, WANG Lan-min, WANG Yu-hua (214)
The Characteristics of Structure Plane of Quaternary Fault in Soilmass and Its Significance of Earthquake and Geotechnical Engineering	JIANG Jian-ping, ZHANG Yang-song, GAO Guang-yun, et al. (218)
Study on the Application of BP Nervous Network in Classification of Rockmass Quality	LI Qiang (229)
Preliminary Research on Paleoeartquakes of the Baodaifu Fault	DONG Zhi-ping, HE Wen-gui, DAI Hua-guang (229)
The Spatial and Temporal Activity Characteristics of Strong Earthquakes and Seismic Risk Analysis around Ordos Massif	CAO Jing-quan (235)
Discussion on the Focal Mechanism, Seismogenic Fault of Tianzhu—Gulang Earthquake (M_S 5.4) and the Seismic Risk of Western Haiyuan Fault	LI Ya-rong, ZHU Xin-yun (240)
The Primary Study on Correlation of Earthquakes with $M_S \geq 7.0$ in Tibet Plateau	YANG Li-ming, XU Hu (246)
Research on Hurst Exponent of Seismic Frequency in Jiangsu and Its Adjacent Area	LI Qiang, XU Gui-ming (250)
Analysis on the Interference Factor and reflecting Earthquake Ability of Radon in Deep Well Groundwater	WANG Zhi-gao (261)
The Characteristics of Anomalous Variations on Barometric Pressure Efficiency and Interrelation Coefficient of Groundwater Level in Deep Wells before Moderate and Strong Earthquakes	GENG Jie, ZHOU Bin, ZHANG Zhao-dong (261)
Analysis on the Ability of Groundwater Level for Recording Seismic Wave in Shangxi Water 2 and Yue 42 Wells Tangshang, China	ZHANG Zi-guang, ZHANG Su-xin, ZHENG Yun-zhai, et al. (266)
Study on Characteristics of the Seismicity Enhancement of Moderate Earthquakes before $M \geq 5$ Events in Ningxia and Its Adjacent Areas	REN Xue-mei, MA He-qing, ZHAO Zhijun, et al. (272)

- The Characteristic of Anomalies and Seismical Sequence of $M_{S}5.3$ Earthquake Occurred in Sunan County on July 11, 2001 XIAO Li-zhu, LIU Xiao-feng, ZHENG Wei-ping (277)
- Academic Contention**
- The Real Errors in the Paper^⑥ "Manifest Expressions of Three Basic Parameters in Biot Theory" —— Replying Prof. Ding Beyang LIU Xu (282)
- Research Report in Brief**
- The Focal Mechanism of Earthquake in Henan and Its Adjacent Region XIE Zhi, LIU Yao-xing, HU Wei-jian, et al. (286)
- Research Note**
- The Great Earthquake in Ocean and Its Margin is One of The most for Adjusting Climate GUO Zeng-jian (287)
- No. 4**
- One-dimensional Inversion for the Magnetotelluric Data in Lanzhou Region by Occam's and General Inverse Methods YANG Chang-fu, LIN Chang-you, CHEN Jun-ying, et al. (294)
- Study on the Classifying System of Short-term Comprehensive Earthquake Prediction Based on the Genetic Algorithms Li Ying-zhen, Wang Hai-tao, Long Hai-ying, et al. (302)
- Influence of Water Saturation on Seismic Reflection and Transmission Coefficients at A Mainly Water-saturated Porous Soil Interface LI Wei-hua (309)
- Study on the Element Mathematic Modelling for Strong Earthquake Activities in Southwest China CHEN Hua-nan, ZHANG Jie-qing, DONG Hong-jun, et al. (314)
- Forecasting Method of Earthquake Time Serial in Mainland of China by Using the Artificial Neural Networks WANG Wei, XIE Duan, SONG Xian-yue, et al. (319)
- Discussion on the Forming Time of the Big Winding of Yellow River in Shapotou Ningxia Province FENG Xi-jie, SHI Ya-qin (324)
- Result Analysis and Calibration for Shanghai Array REN Jun, ZHU Yuan-qing, QIN Hao-wen (329)
- Research on the Seismicity Increasing Before Strong Earthquakes in Qilianshan Seismic Belt CHENG Jian-wu, YANG Li-ming, WANG Zhen-ya (334)
- Corresponding Relation between the Predicted Time Intervals from the Two-time Method of Magnetic Storm Related to Lunar Phase and the Occurrence of Large Earthquakes ($M \geq 7.5$) Over the World SHEN Zong-pi, XU Dao-ji, ZHANG Xiao-dong, et al. (339)
- Observation Accuracy and Seismic Precursor Anomalies of Vertical Pendulum Tiltmeters in Xinjiang YANG You-ling, PEI Hong-da, XU Daozun, et al. (345)
- Study on Synthetic Prediction Plan of Medium-strong Earthquakes for One year Scale in Ningxia and Adjacent Regions MA He-qing, ZHAO Wei-ming, WEIDING-jun (351)
- Examination and Analysis on the Earthquake-effect of Dynamic-compaction Construction REN Xi-tai (355)
- Combination Patterns of Fault—Principal Stress of Precursor Field Responded by the Atmospheric Pressure Efficiency b value of Water Level in Well BU Fan-quan, YANG Yan (360)
- Overview**
- The Construction of Lanzhou Digital Telemetry Seismic Network HE Shao-lin, ZHANG Gui-hua, ZHAO Xin-min, et al. (366)
- Research Report in Brief**
- Tectonic Basis and Excitation Condition of El Nino YANG Xue-xiang (370)
- Chinese Operation Platform for Earthquake Rapid Report in Telemetry Network ZHAO Jian-he, LING Xue-shu, LIAO Shi-rong (373)
- Precursor Anomalies in Wudu Station before Kangding-Yajiang $M_{S}6.0$ Earthquake GAO Shu-de, SU Yong-gang, GAO Yuan, et al. (376)
- Research Note**
- Discovery of Paleoelephant Fossile in Liujiashan, Lanzhou LIU Bai-chi, LIU Xiao-feng, ZHAO Zhen-ming, et al. (378)
- Focal Mechanism of Jingtai $M_{S}5.9$ Earthquake on June 6, 2000, Gansu, China LIU Xu-zhou (379)