

ISSN 1671-6345

CN 11-2374/P

气象科技

METEOROLOGICAL SCIENCE AND TECHNOLOGY

第44卷 第6期 Vol. 44 No. 6

6
2016

ISSN 1671-6345



9 771671 634160

中国气象局气象探测中心
中国气象科学研究院
北京市气象局
国家卫星气象中心
国家气象信息中心

主办

METEOROLOGICAL SCIENCE AND TECHNOLOGY

Vol. 44 No. 6 2016

CONTENTS

Atmospheric Sounding and Information Technology

- Measurement Performance Analysis of Differential Reflectivity for Dual-Polarization Weather Radar Made in China Li Zhe, Li Bai, Zhao Kun, Shao Nan, Bu Zhichao, Wang Chongwen (855)
- Detectability Analysis of New Ground-Based Infrared Instrument Guo Wei, Liu Lei (860)
- Inter-comparison of Various Long-Time Soil Moisture Datasets in China Shen Rumping, Zhang Yue, Shi Chunxiang, Li Luoxi, Guo Jia (867)
- Application of New Detecting Instrument Data in Short-Time Heavy Rainfall Cui Yaqin, Zhang Dianguo, Gong Dianli, Wang Hong, Zhang Qian, Liu Quan, Zhang Qiuchen (875)
- Algorithm Design of Fast and Real-Time Quality Control for Precipitation Data from Automatic Stations Wu Shucheng, Wei Shuang, Wang Liji, Hu Yongliang, Teng Zhou, Chen Qing (882)
- Influence Analysis of Air Moisture on Temperature Observations from Radiosondes Xu Xia, Chen Cungen (889)
- Design and Application of Test and Maintenance Database for Weather Radar Wang Zhiwu, Lu Xinglai, Chen Hao (896)
- Automatic Detecting Device for Freezing Faults Based on ZQZ-TF Wind Sensor Zhu Shiheng, He Xiaoqing, Zhu Ping (902)
- Design and Implementation of Key SMS Monitoring Platform for Fengyun-3 Meteorological Satellites Tian Siwei, Qu Xingzhi, Zhang Yuanyuan, Zhao Xiangang, Xie Lizi (907)
- Protection and Application Technology of AWS's at Islands over South China Sea Gan Zhiqiang, Lu Tujin, Gao Tao, Jing Gaofei, Cui Xuelin, Huang Bin (913)
- Design and Application of a County-Level Integrated Intelligent Power Supply System to Meteorological Service Yang Changda, Zhang Jinyong, Gu Heng, Yang Ping, Shu Dongxiang (918)
- Field Calibration Traceability and a Delivery Method of Wind Speed Indications of Automatic Weather Stations Chen Tao, Zhang Hu, Zheng Liang, Hu Canglong, Huang Xiaojing (923)

Weather & Climate and Numerical Forecasting

- Status and Development Direction of Sea Fog Research in Western Side of Taiwan Strait Han Mei, Gao Shan, Zeng Jinyu, Gao Conghui (928)
- Test and Analysis of GRAPES_TYM Model for TC Track and Environmental Steering Flow Forecast Wu Yu, Ma Suhong, Li Xun, Zhang Jin, Xue Chenbin, Cai Qinbo (937)
- Characteristics and Discrimination Method of Freezing Rain Weather in Hubei Province Zhou Yue, Xu Guanyu, Gao Zhengxu, Yang Jialun (949)
- Analysis of Heating/Cooling Degree Days in China under Background of Climate Warming Wang Yuhong, Zhi Xiefei, Zhu Shoupeng, Ji Luying (956)
- Impact Factors of Summer Temperature on Large-scale Circulation in Northeast China Li Zonghao, Fang Yihe, Xu Fangshu, Xi Xiaotong, Wang Xiuying, Zhou Xiaoyu, Xu Hong, Cai Bing, Ma Fanshu (965)
- Decadal Variation Characteristics of Extreme Temperature Events and Their Differences between Urban and Rural Areas Yu Zhenyan, Li Zhengquan, Zhang Yuhui, Wang Kuo (972)
- Contrastive Analysis of Precipitation Phase Behavior Criteria in Southeastern Inner Mongolia Xu Jianguo, Zhao Liqing, Song Yuhong, Ji Yuanming, Wan Yu (979)
- Temporal-Spatial Distribution Characteristics of Temperature and Precipitation in Northern Henan Zhang Jinping, Li Xiangyan (985)
- Statistics Analysis of Heat Wave Events in Changsha in Recent 64 Years Fu Shuai, Jiang Yong, Zhang Xiaoquan, Zhu Xinwei, Peng Jingjing, Chen Shuhui (991)
- Climate Characteristics of Summer Precipitation Anomaly in Fushun Li Junyue, Lyu Zhihong, Zhang Hong, Sui Ming, Ma Xiaochen, Liu Shuai, Liu Ming (998)
- Periodic Variation of Sunshine Duration from 1953 to 2014 in Lishui Wu Haomin, Jiang Yanmin, Lu Zhao, Xu Xianbin (1004)
- Diagnostic Analysis of a Meiyu Heavy Rain in Northeast Hubei Province by Using Divergence Equation Zhang Duanyu, Xu Jianyu, Zhao Yuchun (1009)
- Formation Mechanism of a Northeastern Vortex Rainstorm Si Qin, Xun Xueyi, Wang Jiajin (1016)
- Analysis of Characteristics and Meteorological Elements of Drizzle-Like Fog Events in Summer in Tai'an Mountain Area Yang Hezhu, Zhang Wei, Abuduwaili Abulikemu, Wang Yuan (1024)

Applied Meteorology and Scientific Experiments

- Current Situation of Equalization of Basic Public Weather Service Level in China: An Empirical Study Based on Multi-level Grey Correlation Peng Benhong, Wu Baiyu, Tu Yu (1030)
- Characteristics of Probability Distribution for Lightning Peak Current and Segment Revision for Cumulative Probability Wang Xueliang, Zhang Kejie, Yu Tianye, Wang Zihe (1037)
- Layout of Ground Burners and Analysis of Rain Enhancement Conditions in Hainan Province He Yuan, Huang Yanbin, Li Chunluan, Li Guangwei (1043)
- Radar Echo Response to Rocket Precipitation Enhancement in a Field Operation Wang Yilin, Yao Zhanyu, Lin Changcheng (1053)
- Occurrence Regularity of Tea Spring Frost and Its Risk Distribution in Anhui Province Liu Ruina, Chen Peng (1060)
- Temporal and Spatial Distribution of Early Spring Frost for Spring Tea in Southern Zhejiang Jiang Yanmin, Jin Zhifeng, Li Renzhong, Zhang Yuhui, Yu Wenjuan (1066)

ISSN 1671-6345
CN 11-2374/P

电话: (010)68407256

http://www.qxkj.net.cn
Email: qxkj@camsma.cn

定价: 20.00 元 出版: 2016 年 12 月 卷终

《气象科技》第4届
编审委员会

顾问:周秀骥 丑纪范
李泽椿 许健民
陈联寿 丁一汇
主编:徐祥德 王晓云
副主编:李 柏 张人禾
王建捷 赵立成
卢乃锰 曹晓钟
曾晓梅(专职)

编审委员会委员

(以汉语拼音为序):

毕宝贵 卞林根 陈忠明
端义宏 高守亭 胡 非
李维京 刘黎平 刘奇俊
刘式适 马舒庆 毛节泰
沈建国 沈文海 师春香
孙 力 汤 洁 陶祖钰
万玉发 王春乙 王 辉
王石立 王迎春 王振会
魏凤英 吴 兑 肖子牛
姚展予 张义军 赵 平
朱国富 朱小祥

特邀编委

(以汉语拼音为序):

常国刚 杜继稳 冯建民
假 拉 柯怡明 李春虎
林新彬 马 力 裴 浩
权循刚 孙安平 孙永罡
汤 绪 汤筑强 汪扩军
王江山 韦力行 魏文寿
吴岩峻 谢 璞 薛根元
杨 明 姚学祥 于 波
余 勇 翟武全 张洪涛
张书余 赵国强 朱其文
左 雄

编辑部主任:郭志梅

气象科技

QIXIANG KEJI

(双月刊,1973年创刊)

主管单位:中国气象局

编辑出版:《气象科技》编辑部

北京市海淀区中关村

南大街46号,100081

印刷装订:北京永峥印刷有限

责任公司

气 象 科 技

METEOROLOGICAL SCIENCE AND TECHNOLOGY

2016年 第44卷 第6期(总第259期)卷终

目 次

大气探测与信息技术

国产双偏振天气雷达差分反射率测量性能分析 李喆,李柏,赵坤,邵楠,步志超,王崇文(855)
地基红外测云仪探测能力分析 郭伟,刘磊(860)
长时间序列多源土壤湿度产品在中国地区的比较分析 沈润平,张悦,师春香,李洛晔,郭佳(867)
新探测仪器资料在短时强降水过程中的应用 崔雅琴,张佃国,龚佃利,王洪,张骞,刘泉,张秋晨(875)
自动气象站降水实时快速质控算法设计 吴书成,魏爽,王丽吉,胡永亮,滕舟,陈晴(882)
空中水分对探空仪温度观测的影响 许霞,陈存根(889)
天气雷达测试维修数据库的设计及应用 王志武,卢兴来,陈昊(896)
ZQZ-TF型风传感器冻结故障自动检测装置设计 朱世恒,何晓庆,朱平(902)
FY3地面业务系统关键信息短信报警平台的设计及实现 田思维,屈兴之,张媛媛,赵现纲,谢利子(907)
南海海岛自动气象站防护应用技术探索 甘志强,陆土金,高涛,井高飞,崔学林,黄斌(913)
县级综合气象业务智能供电系统的设计及应用 杨昌达,张锦勇,顾衡,杨平,舒冬香(918)
自动气象站风速现场校准量值溯源及传递方法试验 陈涛,张虎,郑亮,胡苍龙,黄小静(923)

天气气候与数值预报

台湾海峡西岸海雾研究现状与未来发展方向 韩美,高珊,曾瑾瑜,高聪晖(928)
GRAPES_TYM模式对TC路径及环境引导气预报检验分析 吴俞,麻素红,李勋,张进,薛湛彬,蔡亲波(937)
湖北省冻雨天气特征及其判定方法研究 周悦,许冠宇,高正旭,杨加仓(949)
气候变暖前后我国热日数和冷日数的特征分析 王玉虹,智协飞,朱寿鹏,吉璐莹(956)
东北夏季气温的大尺度环流影响因子分析 李宗昊,房一禾,徐方姝,席晓彤,王修莹,周晓宇,徐红,蔡冰,马凡舒(965)
浙江省极端气温事件年代际变化特征及城乡差异分析 郁珍艳,李正泉,张育慧,王阔(972)
内蒙古东南部降水相态判据的对比分析 徐建国,赵立清,宋玉红,纪圆明,万宇(979)
豫北地区气温、降水变化的时空分布特征 张金平,李香颜(985)
近64年长沙市高温热浪事件统计分析 傅帅,蒋勇,张小泉,朱歆炜,彭晶晶,陈舒慧(991)
抚顺地区夏季降水异常的气候特征分析 李俊乐,吕志红,张鸿,隋明,马晓晨,刘帅,刘明(998)
1953—2014年丽水日照时数周期演变规律 吴昊旻,姜燕敏,卢钊,许贤彬(1004)
应用全型散度方程诊断鄂东北一次梅雨强降雨 张端禹,许建玉,赵玉春(1009)
一次东北冷涡暴雨过程成因分析 斯琴,荀学义,王佳津(1016)
泰安山区一次夏季雨雾天气过程特征和气象要素分析 杨何著,张唯,阿不都外力·阿不力克木,王元(1024)

应用气象与科学试验

中国基本公共气象服务均等化水平现状——基于多层次灰色关联的实证研究 彭本红,武柏宇,屠羽(1030)
雷电流幅值概率分布特征及累积概率分段修订 王学良,张科杰,余田野,汪姿荷(1037)
海南省暖云烟炉设置及人工增雨作业条件分析 何媛,黄彦彬,李春鸾,李光伟(1043)
一次火箭人工增雨作业雷达回波响应探讨 王以琳,姚展予,林长城(1053)
安徽省茶叶春霜冻发生规律及风险分布 刘瑞娜,陈鹏(1060)
浙南春茶早春霜冻的时空分布特征 姜燕敏,金志凤,李仁忠,张育慧,余文娟(1066)
《气象科技》征订 (990)

METEOROLOGICAL SCIENCE AND TECHNOLOGY

Vol. 44 No. 6 2016

CONTENTS

Atmospheric Sounding and Information Technology

- Measurement Performance Analysis of Differential Reflectivity for Dual-Polarization Weather Radar Made in China Li Zhe, Li Bai, Zhao Kun, Shao Nan, Bu Zhichao, Wang Chongwen (855)
- Detectability Analysis of New Ground-Based Infrared Instrument Guo Wei, Liu Lei (860)
- Inter-comparison of Various Long-Time Soil Moisture Datasets in China Shen Runding, Zhang Yue, Shi Chunxiang, Li Luoxi, Guo Jia (867)
- Application of New Detecting Instrument Data in Short-Time Heavy Rainfall Cui Yaqin, Zhang Dianguo, Gong Dianli, Wang Hong, Zhang Qian, Liu Quan, Zhang Qiuchen (875)
- Algorithm Design of Fast and Real-Time Quality Control for Precipitation Data from Automatic Stations Wu Shucheng, Wei Shuang, Wang Liji, Hu Yongliang, Teng Zhou, Chen Qing (882)
- Influence Analysis of Air Moisture on Temperature Observations from Radiosondes Xu Xia, Chen Cungen (889)
- Design and Application of Test and Maintenance Database for Weather Radar Wang Zhiwu, Lu Xinglai, Chen Hao (896)
- Automatic Detecting Device for Freezing Faults Based on ZQZ-TF Wind Sensor Zhu Shiheng, He Xiaoqing, Zhu Ping (902)
- Design and Implementation of Key SMS Monitoring Platform for Fengyun-3 Meteorological Satellites Tian Siwei, Qu Xingzhi, Zhang Yuanyuan, Zhao Xiangang, Xie Lizi (907)
- Protection and Application Technology of AWS's at Islands over South China Sea Gan Zhiqiang, Lu Tujin, Gao Tao, Jing Gaofei, Cui Xuelin, Huang Bin (913)
- Design and Application of a County-Level Integrated Intelligent Power Supply System to Meteorological Service Yang Changda, Zhang Jinyong, Gu Heng, Yang Ping, Shu Dongxiang (918)
- Field Calibration Traceability and a Delivery Method of Wind Speed Indications of Automatic Weather Stations Chen Tao, Zhang Hu, Zheng Liang, Hu Canglong, Huang Xiaojing (923)

Weather & Climate and Numerical Forecasting

- Status and Development Direction of Sea Fog Research in Western Side of Taiwan Strait Han Mei, Gao Shan, Zeng Jinyu, Gao Conghui (928)
- Test and Analysis of GRAPES_TYM Model for TC Track and Environmental Steering Flow Forecast Wu Yu, Ma Suhong, Li Xun, Zhang Jin, Xue Chenbin, Cai Qinbo (937)
- Characteristics and Discrimination Method of Freezing Rain Weather in Hubei Province Zhou Yue, Xu Guanyu, Gao Zhengxu, Yang Jialun (949)
- Analysis of Heating/Cooling Degree Days in China under Background of Climate Warming Wang Yuhong, Zhi Xiefei, Zhu Shoupeng, Ji Luying (956)
- Impact Factors of Summer Temperature on Large-scale Circulation in Northeast China Li Zonghao, Fang Yihe, Xu Fangshu, Xi Xiaotong, Wang Xiuying, Zhou Xiaoyu, Xu Hong, Cai Bing, Ma Fanshu (965)
- Decadal Variation Characteristics of Extreme Temperature Events and Their Differences between Urban and Rural Areas Yu Zhenyan, Li Zhengquan, Zhang Yuhui, Wang Kuo (972)
- Contrastive Analysis of Precipitation Phase Behavior Criteria in Southeastern Inner Mongolia Xu Jianguo, Zhao Liqing, Song Yuhong, Ji Yuanming, Wan Yu (979)
- Temporal-Spatial Distribution Characteristics of Temperature and Precipitation in Northern Henan Zhang Jinping, Li Xiangyan (985)
- Statistics Analysis of Heat Wave Events in Changsha in Recent 64 Years Fu Shuai, Jiang Yong, Zhang Xiaoquan, Zhu Xinwei, Peng Jingjing, Chen Shuhui (991)
- Climate Characteristics of Summer Precipitation Anomaly in Fushun Li Junyue, Lyu Zhihong, Zhang Hong, Sui Ming, Ma Xiaochen, Liu Shuai, Liu Ming (998)
- Periodic Variation of Sunshine Duration from 1953 to 2014 in Lishui Wu Haomin, Jiang Yanmin, Lu Zhao, Xu Xianbin (1004)
- Diagnostic Analysis of a Meiyu Heavy Rain in Northeast Hubei Province by Using Divergence Equation Zhang Duanyu, Xu Jianyu, Zhao Yuchun (1009)
- Formation Mechanism of a Northeastern Vortex Rainstorm Si Qin, Xun Xueyi, Wang Jiajin (1016)
- Analysis of Characteristics and Meteorological Elements of Drizzle-Like Fog Events in Summer in Tai'an Mountain Area Yang Hezhu, Zhang Wei, Abuduwaili Abulikemu, Wang Yuan (1024)

Applied Meteorology and Scientific Experiments

- Current Situation of Equalization of Basic Public Weather Service Level in China: An Empirical Study Based on Multi-level Grey Correlation Peng Benhong, Wu Baiyu, Tu Yu (1030)
- Characteristics of Probability Distribution for Lightning Peak Current and Segment Revision for Cumulative Probability Wang Xueliang, Zhang Kejie, Yu Tianye, Wang Zihe (1037)
- Layout of Ground Burners and Analysis of Rain Enhancement Conditions in Hainan Province He Yuan, Huang Yanbin, Li Chunlun, Li Guangwei (1043)
- Radar Echo Response to Rocket Precipitation Enhancement in a Field Operation Wang Yilin, Yao Zhanyu, Lin Changcheng (1053)
- Occurrence Regularity of Tea Spring Frost and Its Risk Distribution in Anhui Province Liu Ruina, Chen Peng (1060)
- Temporal and Spatial Distribution of Early Spring Frost for Spring Tea in Southern Zhejiang Jiang Yanmin, Jin Zhifeng, Li Renzhong, Zhang Yuhui, Yu Wenjuan (1066)

ISSN 1671-6345
CN 11-2374/P

电话: (010)68407256

http://www.qxkj.net.cn
Email: qxkj@camsma.cn

定价: 20.00 元 出版: 2016 年 12 月 卷终