

ISSN 1671-6345

CN 11-2374/P



QK1822877

气象科技

METEOROLOGICAL SCIENCE AND TECHNOLOGY

第46卷 第2期 Vol. 46 No. 2

2

2018

ISSN 1671-6345



9 771671 634184

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

《气象科技》第5届
编审委员会

顾问:周秀骥 丑纪范
李泽春 许健民
陈联寿 丁一汇
张人禾
主编:徐祥德 李良序
副主编:赵平 王迎春
肖文名 魏彩英
曹晓钟 郭志梅(专职)

委员

(以姓氏拼音排序):

敖振浪 毕宝贵 卞林根
陈德辉 陈洪滨 戴建华
端义宏 高太长 高玉春
郭建平 行鸿彦 何建新
何立富 何平 黄嘉佑
黄兴友 雷小途 李柏
李昌兴 李巧萍 李庆祥
李万彪 李维京 李跃清
刘健 刘黎平 刘树华
刘旭林 刘一鸣 罗兵
马尚昌 马舒庆 毛节泰
孟昭林 缪启龙 任国玉
沙奕卓 沈文海 施进明
施能 寿绍文 孙继松
谈建国 汤洁 唐国利
陶祖钰 万齐林 王彬
王斌 王建捷 魏凤英
吴兑 肖子牛 熊安元
杨云 杨志彪 杨仲江
姚振东 俞小鼎 张鹏
张强 张义军 张志清
赵立成 郑有飞 郑祖光
周顺武 朱爱军 朱国富

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

2018年 第46卷 第2期(总第267期)

目次

大气探测与信息技术

地面气温对微环境空间差异的响应——以漠河站为例 刘玉莲,任国玉,张广英,于宏敏(215)
中国气象辐射观测站总辐射表稳定性统计分析 权继梅,杨云,丁蕾(224)
风向现场校准三点测量不确定度分析 郑亮,张天华,黄小静,刘宗庆,李晓红,杨涛(229)
基于Pt100铂电阻的无线地温测温系统设计 龚熙,曾涛,杨维发,蔡明(233)
一次电线积冰个例的数据处理及关联度分析 曼世超,卢会国,蒋娟萍,赵锦阳(237)
BCC_AGCM大气环流模式异构众核加速技术 肖洒,魏敏(245)
任意时段累年气候数据统计流程优化及应用 刘尉,吴门新,庄立伟(250)
雷达数据传输方式的改进及时效性分析 赵瑞金,张进(257)
基于OSGi.NET的公共气象服务平台设计与实现 王锡良(262)

天气气候与数值预报

静力与非静力平衡模式动力框架对比 张发波,王斌,李立娟(267)
基于Endlich迭代调整的全球流函数和速度势计算及风场分解与重建 黎爱兵,李旺,莫毅(275)
华东地区弱天气背景下强对流过程的GRAPES-Meso模式模拟分析 万子为,刘鑫华(282)
南极涛动与西沙夏季气候的关联性 孙立,周顺武,孙阳,陈少健,陈长丘,周海霞(292)
1961—2014年中国东部地区夏季极端降水事件时空变化特征 王雨泉,游庆龙,谢星昶(299)
随机森林模型判定热带气旋变性完成时间 刘吉敏,黄泓,吐莉尼沙(307)
贵州省分月太阳辐射参数模型计算 谭文,古书鸿,廖留峰,张波(316)
两次台风暴雨冷空气影响对比分析 杨舒楠,陈涛,刘建勇(324)
一次长生命史超级单体风暴的雷达观测特征和维持机制 高帆,褚颖佳,胡鹏,刁秀广(336)
一次山东特大暴雨干侵入的作用 韦英英(343)
近55年湖北省凉夏气候事件及其大气环流特征 洪国平,王苗,方思达(352)
青海南部高寒草地土壤冻融交替期水热特征分析 韩炳宏,周秉荣,吴让,颜玉倩,牛得草,傅华(361)
河西走廊东部一次霜冻成因分析 郭小芹,钱莉(369)

应用气象与科学试验

中国对流层NO_x垂直柱总量分布特征及其与闪电活动的相关性分析 曹冬杰,闫欢欢,齐瑾(374)
作物模型参数敏感性分析现状与展望 王连喜,张阳,李琪,胡正华,任景全,卢媛媛,王田(382)
江南茶区茶树栽培综合适宜性评价 胡波,金志凤,李颖,丁焯毅,李仁忠(390)
基于哨兵1号的洪水淹没面积监测 范伟,何彬方,姚筠,张宏群,苟尚培,刘惠敏(396)
公路路面热效应对环境气温的影响分析 罗丽,郭建侠,陈一枝,贾红莉,薛春芳,郭江峰,严家德(403)
青海东部地区雷电灾害易损性分析与区划 王敏,孔尚成,王秀英(412)
天气突变对心脑血管疾病的影响 樊希彬,谭丽静,李丹,范佳文,樊金霞,马云龙,孙莹(418)
广州珠江新城地区高建筑物雷电回击磁场分析 殷启元,黄惺惺(423)
《气象科技》征订 (306)

METEOROLOGICAL SCIENCE AND TECHNOLOGY

Vol. 46 No. 2 2018

CONTENTS

Atmospheric Sounding and Information Technology

- Response of Surface Air Temperature to Micro-Environmental Change: Results from Mohe Parallel Observation Experiment Liu Yulian, Ren Guoyu, Zhang Guangying, Yu Hongmin (215)
- Statistical Analysis of Stability of Total Radiation Meters at National Meteorological Radiation Observation Stations Quan Jimei, Yang Yun, Ding Lei (224)
- Uncertainty Analysis of Three-Point Measurement of Wind Direction in Field Calibration Zheng Liang, Zhang Tianhua, Huang Xiaojing, Liu Zongqing, Li Xiaohong, Yang Tao (229)
- Design of Wireless Ground Temperature Measurement System Based on Pt100 Platinum Resistor Gong Xi, Zeng Tao, Yang Weifa, Cai Ming (233)
- Data Processing and Correlation Analysis of a Wire Icing Case Man Shichao, Lu Huiguo, Jiang Juanping, Zhao Jinyang (237)
- Many-Core Acceleration of BCC_AGCM Model in Hybrid Architecture Xiao Sa, Wei Min (245)
- Flow Optimization of Any Period Climatic Data Statistics for Successive Years and Its Application Liu Wei, Wu Menxin, Zhuang Liwei (250)
- Mode Improvement and Timeliness Analysis of Radar Data Transmission Zhao Ruijin, Zhang Jin (257)
- Public Meteorological Service Platform Based on OSGi.NET Wang Xiliang (262)

Weather & Climate and Numerical Forecasting

- Comparison between Hydrostatic and Non-hydrostatic Dynamics Solvers for Atmospheric Models Zhang Fabo, Wang Bin, Li Lijuan (267)
- Computation of Global Stream Function and Velocity Potential and Wind-Field Partitioning and Reconstruction Based on Endlich Iteration and Adjustment Li Aibing, Li Wang, Mo Yi (275)
- Simulation Analysis of Severe Convective Weather in Weakly Forced System in Eastern China with GRAPES-Meso Wan Ziwei, Liu Xinhua (282)
- Correlation of Antarctic Oscillation and Summer Climate in Xisha Sun Li, Zhou Shunwu, Sun Yang, Chen Shaojian, Chen Changqiu, Zhou Haixia (292)
- Spatial and Temporal Variation of Extreme Precipitation Events in Eastern China from 1961 to 2014 Wang Yuxiao, You Qinglong, Xie Xingyang (299)
- Applying Random Forests to Determine Completion Time of Extratropical Transitioning Tropical Cyclones Liu Jimin, Huang Hong, Tulinisha (307)
- Calculation of Monthly Solar Radiation Coefficients in Guizhou Province Tan Wen, Gu Shuhong, Liao Liufeng, Zhang Bo (316)
- Comparative Analysis of TC Rainstorms Induced by Cold Air Intrusion of Two TC Cases Yang Shunan, Chen Tao, Liu Jianyong (324)
- Radar Observation Characteristics and Maintenance Mechanisms of a Long Life Supercell Storm Gao Fan, Chu Yingjia, Hu Peng, Diao Xiuguang (336)
- Impacts of Dry Intrusion on a Heavy Rainstorm in Shandong Province Wei Yingying (343)
- Characteristics of Cool Summer Events and Atmospheric Circulation in Last 55 Years over Hubei Province Hong Guoping, Wang Miao, Fang Sida (352)
- Characteristics of Hydrothermal Factors in Soil Freezing and Thawing Alternation over Southern Alpine Grasslands in Qinghai Province Han Binghong, Zhou Bingrong, Wu Rang, Yan Yuqian, Niu Decao, Fu Hua (361)
- Causal Analysis of a Late Frost Event in Eastern Hexi Corridor Guo Xiaoqin, Qian Li (369)

Applied Meteorology and Scientific Experiments

- Distribution of Tropospheric NO_x Vertical Column Density in China and Its Correlation with Lightning Activity Cao Dongjie, Yan Huanhuan, Qi Jin (374)
- Current Status and Prospects of Sensitivity Analysis of Crop Model Parameters Wang Lianxi, Zhang Yang, Li Qi, Hu Zhenghua, Ren Jingquan, Lu Yuanyuan, Wang Tian (382)
- Comprehensive Suitability Evaluation of Tea Cultivation in Regions South of Yangtze River Hu Bo, Jin Zhifeng, Li Ying, Ding Yeyi, Li Renzhong (390)
- Survey Study of Flood Inundation Areas Based on Sentinel-1 Fan Wei, He Binfang, Yao Yun, Zhang Hongqun, Xun Shangpei, Liu Huimin (396)
- Experimental Analysis of Impact of Roads on Temperature Observation Luo Li, Guo Jianxia, Chen Yizhi, Jia Hongli, Xue Chunfang, Guo Jiangfeng, Yan Jiade (403)
- Vulnerability and Regionalization of Lightning Disasters in Eastern Qinghai Wang Min, Kong Shangcheng, Wang Xiuying (412)
- Impact of Sudden Weather Changes on CCVd from November to Next February in Dandong Fan Xibin, Tan Lijing, Li Dan, Fan Jiawen, Fan Jinxia, Mayunlong, Sunyin (418)
- Statistics Characteristics of Lightning Return-Stroke Electromagnetic Field Produced by Tall-Building in Pearl River New Area of Guangzhou Yin Qiyuan, Huang Xingxing (423)

ISSN 1671-6345
CN 11-2374/P

电话: (010)68407256

http://www.qxkj.net.cn
Email: qxkj@cma.gov.cn

定价: 20.00 元

出版: 2018 年 4 月

METEOROLOGICAL SCIENCE AND TECHNOLOGY

Vol. 46 No. 2 2018

CONTENTS

Atmospheric Sounding and Information Technology

- Response of Surface Air Temperature to Micro-Environmental Change: Results from Mohe Parallel Observation Experiment Liu Yulian, Ren Guoyu, Zhang Guangying, Yu Hongmin (215)
- Statistical Analysis of Stability of Total Radiation Meters at National Meteorological Radiation Observation Stations Quan Jimei, Yang Yun, Ding Lei (224)
- Uncertainty Analysis of Three-Point Measurement of Wind Direction in Field Calibration Zheng Liang, Zhang Tianhua, Huang Xiaojing, Liu Zongqing, Li Xiaohong, Yang Tao (229)
- Design of Wireless Ground Temperature Measurement System Based on Pt100 Platinum Resistor Gong Xi, Zeng Tao, Yang Weifa, Cai Ming (233)
- Data Processing and Correlation Analysis of a Wire Icing Case Man Shichao, Lu Huiguo, Jiang Juanping, Zhao Jinyang (237)
- Many-Core Acceleration of BCC_AGCM Model in Hybrid Architecture Xiao Sa, Wei Min (245)
- Flow Optimization of Any Period Climatic Data Statistics for Successive Years and Its Application Liu Wei, Wu Menxin, Zhuang Liwei (250)
- Mode Improvement and Timeliness Analysis of Radar Data Transmission Zhao Ruijin, Zhang Jin (257)
- Public Meteorological Service Platform Based on OSGi.NET Wang Xiliang (262)

Weather & Climate and Numerical Forecasting

- Comparison between Hydrostatic and Non-hydrostatic Dynamics Solvers for Atmospheric Models Zhang Fabo, Wang Bin, Li Lijuan (267)
- Computation of Global Stream Function and Velocity Potential and Wind-Field Partitioning and Reconstruction Based on Endlich Iteration and Adjustment Li Aibing, Li Wang, Mo Yi (275)
- Simulation Analysis of Severe Convective Weather in Weakly Forced System in Eastern China with GRAPES-Meso Wan Ziwei, Liu Xinhua (282)
- Correlation of Antarctic Oscillation and Summer Climate in Xisha Sun Li, Zhou Shunwu, Sun Yang, Chen Shaojian, Chen Changqiu, Zhou Haixia (292)
- Spatial and Temporal Variation of Extreme Precipitation Events in Eastern China from 1961 to 2014 Wang Yuxiao, You Qinglong, Xie Xingyang (299)
- Applying Random Forests to Determine Completion Time of Extratropical Transitioning Tropical Cyclones Liu Jimin, Huang Hong, Tulinisha (307)
- Calculation of Monthly Solar Radiation Coefficients in Guizhou Province Tan Wen, Gu Shuhong, Liao Liufeng, Zhang Bo (316)
- Comparative Analysis of TC Rainstorms Induced by Cold Air Intrusion of Two TC Cases Yang Shunan, Chen Tao, Liu Jianyong (324)
- Radar Observation Characteristics and Maintenance Mechanisms of a Long Life Supercell Storm Gao Fan, Chu Yingjia, Hu Peng, Diao Xiuguang (336)
- Impacts of Dry Intrusion on a Heavy Rainstorm in Shandong Province Wei Yingying (343)
- Characteristics of Cool Summer Events and Atmospheric Circulation in Last 55 Years over Hubei Province Hong Guoping, Wang Miao, Fang Sida (352)
- Characteristics of Hydrothermal Factors in Soil Freezing and Thawing Alternation over Southern Alpine Grasslands in Qinghai Province Han Binghong, Zhou Bingrong, Wu Rang, Yan Yuqian, Niu Decao, Fu Hua (361)
- Causal Analysis of a Late Frost Event in Eastern Hexi Corridor Guo Xiaoqin, Qian Li (369)

Applied Meteorology and Scientific Experiments

- Distribution of Tropospheric NO_x Vertical Column Density in China and Its Correlation with Lightning Activity Cao Dongjie, Yan Huanhuan, Qi Jin (374)
- Current Status and Prospects of Sensitivity Analysis of Crop Model Parameters Wang Lianxi, Zhang Yang, Li Qi, Hu Zhenghua, Ren Jingquan, Lu Yuanyuan, Wang Tian (382)
- Comprehensive Suitability Evaluation of Tea Cultivation in Regions South of Yangtze River Hu Bo, Jin Zhifeng, Li Ying, Ding Yeyi, Li Renzhong (390)
- Survey Study of Flood Inundation Areas Based on Sentinel-1 Fan Wei, He Binfang, Yao Yun, Zhang Hongqun, Xun Shangpei, Liu Huimin (396)
- Experimental Analysis of Impact of Roads on Temperature Observation Luo Li, Guo Jianxia, Chen Yizhi, Jia Hongli, Xue Chunfang, Guo Jiangfeng, Yan Jiade (403)
- Vulnerability and Regionalization of Lightning Disasters in Eastern Qinghai Wang Min, Kong Shangcheng, Wang Xiuying (412)
- Impact of Sudden Weather Changes on CCVD from November to Next February in Dandong Fan Xibin, Tan Lijing, Li Dan, Fan Jiawen, Fan Jinxia, Mayunlong, Sunyin (418)
- Statistics Characteristics of Lightning Return-Stroke Electromagnetic Field Produced by Tall-Building in Pearl River New Area of Guangzhou Yin Qiyuan, Huang Xingxing (423)

ISSN 1671-6345
CN 11-2374/P

电话: (010)68407256

http://www.qxkj.net.cn
Email: qxkj@cma.gov.cn

定价: 20.00 元

出版: 2018 年 4 月