



QK2133743

气象科技

METEOROLOGICAL SCIENCE AND TECHNOLOGY

第49卷 第4期 Vol. 49 No. 4

4

2021



ISSN 1671-6345



08>

9 771671 634214

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

2021年 第49卷 第4期(总第287期)

目次

大气探测与信息技术

- 基于太阳能无人艇的海洋气象观测系统及其初步试验 陈洪滨, 李军, 马舒庆, 魏应植, 赵宇(509)
- CINRAD/ SA-D 雷达差分反射率金属球标定试验 朱毅, 周红根, 赵宇, 刘俊, 杜云东, 储晨曦, 王新(517)
- 螺旋桨测风仪风洞测试及不确定度分析 李松奎, 贺晓雷, 边泽强, 刘昕(524)
- 基于物联网的气象观测站电量在线检测方法 徐建鹏, 王东旭, 周鹿扬, 王杰(529)
- 基于GIT的气象数值模式代码管理平台 METCODE 赵春燕, 王彬, 孙婧, 常飏, 胡江凯, 周斌(535)

天气气候与数值预报

- GRAPES-GEPS K-均值集合预报产品开发及应用 齐倩倩, 佟华, 陈静(542)
- 基于K均值聚类的中国夏季降水日变化空间分布模式 朱黎明, 张智欣, 魏庆伟(552)
- SWCWARMS模式小时降水量时间滞后集合预报研究 张武龙, 王彬雁, 陈朝平, 冯汉中(561)
- 两次斜压锋生类强对流过程对比分析 盛志军, 周雨, 张国平(569)
- 一次超级单体龙卷双偏振多普勒天气雷达分析 项阳, 吴林林(579)
- 利用激光雷达判别机场晴空风切变事件成因 代冰冰, 何敏, 杨靖新, 张明欣(589)
- 1960—2019年山西省地面风速变化分析 王大勇, 王晓琼, 张冬峰, 刘文平(597)
- CLDAS和GLDAS土壤温度数据在陕西省的适用性评估 刘佩佩, 宋海清, 鲍炜炜, 李静睿(604)
- 干旱严重指数(DSI)在内蒙古地区的适用性分析 曲学斌, 王彦平, 张煦明, 林聪(612)

应用气象与科学试验

- 祁连山北坡一次人工增雨降水过程雨滴谱特征分析 庞朝云, 李宝梓, 张丰伟, 陈祺, 罗汉, 杨瑞鸿(621)
- 太湖地区气溶胶光学特征分析 宋童艾, 王静, 于兴娜, 王焱, 陈彦颖, 高颖, 闫景瑞(629)
- 南京市电力负荷特征及夏季极端负荷与气象条件关系 李艳, 俞剑蔚, 蔡芩宁, 范晓青, 黄琰(637)
- 辽宁省雷电易发区及预警应对等级划分 马虹旭, 袁湘玲, 张凯, 姜禹(647)
- 浙江省地闪特征及致灾危险性分析 顾媛, 张卫斌, 崔雪东(654)
- 埋地金属导体对接地系统电阻测试影响试验分析 覃彬全, 郭在华, 陈佳祺, 吴刚, 糜翔(662)
- 《气象科技》征订 (620)

METEOROLOGICAL SCIENCE AND TECHNOLOGY

Vol. 49 No. 4 2021

CONTENTS

Atmospheric Sounding and Information Technology

- A Marine Meteorological Observation Technique Based on Solar Power-Driven UMV CHEN Hongbin, LI Jun, MA Shuqing, WEI Yingzhi, ZHAO Yu (509)
- Metal Sphere Calibration for Z_{DR} Parameters of CINRAD/SA-D Radar ZHU Yi, ZHOU Honggen, ZHAO Yu, LIU Jun, DU Yundong, CHU Chenxi, WANG Xin (517)
- Measurement and Uncertainty Analysis of Propeller Anemometer in Wind Tunnel LI Songkui, HE Xiaolei, BIAN Zeqiang, LIU Xin (524)
- On-Line Detection Method of Electricity Quantity of Meteorological Observation Station Based on Internet of Things XU Jianpeng, WANG Dongxu, ZHOU Luyang, WANG Jie (529)
- METCODE: A Git-Based Code Management Platform for Meteorological Numerical Model ZHAO Chunyan, WANG Bin, SUN Jing, CHANG Biao, HU Jiangkai, ZHOU Bin (535)

Weather & Climate and Numerical Forecasting

- Development and Application of K-means Ensemble Prediction Product Based on GRAPES-Global Ensemble Prediction System QI Qianqian, TONG Hua, CHEN Jing (542)
- Spatial Distribution of Diurnal Rainfall Variation in Summer over China Using K-means Algorithm ZHU Liming, ZHANG Zhixin, WEI Qingwei (552)
- Time-Lagged Ensemble Forecast of Hourly Precipitation Based on SWCWARMS Model ZHANG Wulong, WANG Binyan, CHEN Chaoping, FENG Hanzhong (561)
- Comparative Analysis of Two Baroclinic Frontogenesis Convection Processes SHENG Zhijun, ZHOU Yu, ZHANG Guoping (569)
- Analysis of a Supercell Tornado with Dual-polarization Doppler Radar XIANG Yang, WU Linlin (579)
- Causal Analysis of a Clear Sky Wind Shear Event at a Plateau Airport in Southwest China Using Lidar Data DAI Bingbing, HE Min, YANG Jingxin, ZHANG Mingxin (589)
- Analysis of Surface Wind Speed Changes in Shanxi during 1960—2019 WANG Dayong, WANG Xiaoqiong, ZHANG Dongfeng, LIU Wenping (597)
- Applicability Evaluation of CLDAS and GLDAS Soil Temperature Data in Shaanxi Province LIU Peipei, SONG Haiqing, BAO Weiwei, LI Jingrui (604)
- Applicability Analysis of Drought Severity Index (DSI) in Inner Mongolia QU Xuebin, WANG Yanping, ZHANG Xuming, LIN Cong (612)

Applied Meteorology and Scientific Experiments

- Raindrop Spectrum Characteristics of an Artificial Precipitation Enhancement Process on Northern Slope of Qilian Mountains PANG Zhaoyun, LI Baozi, ZHANG Fengwei, CHEN Qi, LUO Han, YANG Ruihong (621)
- Optical Properties of Aerosols in Taihu Region of China SONG Tongai, WANG Jing, YU Xingna, WANG Yan, CHEN Yanying, GAO Ying, YAN Jingrui (629)
- Characteristics of Electric Loads in Nanjing and Relationship between Extreme Loads and Meteorological Conditions in Summer LI Yan, YU Jianwei, CAI Xiangning, FAN Xiaoqing, HUANG Yan (637)
- Classification of Response Levels in Lightning-Prone Areas in Liaoning Province MA Hongxu, YUAN Xiangling, ZHANG Kai, JIANG Yu (647)
- Analysis of CG Lightning Characteristics and Disaster-Causing Risk in Zhejiang Province GU Yuan, ZHANG Weibin, CUI Xuedong (654)
- Influence Experiment and Analysis of Buried-Metal Conductor on Resistance Test of Grounding Systems QIN Binquan, GUO Zaihua, CHENG Jiaqi, WU Gang, MI Xiang (662)

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: 2021 年 8 月

METEOROLOGICAL SCIENCE AND TECHNOLOGY

Vol. 49 No. 4 2021

CONTENTS

Atmospheric Sounding and Information Technology

- A Marine Meteorological Observation Technique Based on Solar Power-Driven UMV CHEN Hongbin, LI Jun, MA Shuqing, WEI Yingzhi, ZHAO Yu (509)
- Metal Sphere Calibration for Z_{DR} Parameters of CINRAD/SA-D Radar ZHU Yi, ZHOU Honggen, ZHAO Yu, LIU Jun, DU Yundong, CHU Chenxi, WANG Xin (517)
- Measurement and Uncertainty Analysis of Propeller Anemometer in Wind Tunnel LI Songkui, HE Xiaolei, BIAN Zeqiang, LIU Xin (524)
- On-Line Detection Method of Electricity Quantity of Meteorological Observation Station Based on Internet of Things XU Jianpeng, WANG Dongxu, ZHOU Luyang, WANG Jie (529)
- METCODE: A Git-Based Code Management Platform for Meteorological Numerical Model ZHAO Chunyan, WANG Bin, SUN Jing, CHANG Biao, HU Jiangkai, ZHOU Bin (535)

Weather & Climate and Numerical Forecasting

- Development and Application of K-means Ensemble Prediction Product Based on GRAPES-Global Ensemble Prediction System QI Qianqian, TONG Hua, CHEN Jing (542)
- Spatial Distribution of Diurnal Rainfall Variation in Summer over China Using K-means Algorithm ZHU Liming, ZHANG Zhixin, WEI Qingwei (552)
- Time-Lagged Ensemble Forecast of Hourly Precipitation Based on SWCWARMs Model ZHANG Wulong, WANG Binyan, CHEN Chaoping, FENG Hanzhong (561)
- Comparative Analysis of Two Baroclinic Frontogenesis Convection Processes SHENG Zhijun, ZHOU Yu, ZHANG Guoping (569)
- Analysis of a Supercell Tornado with Dual-polarization Doppler Radar XIANG Yang, WU Linlin (579)
- Causal Analysis of a Clear Sky Wind Shear Event at a Plateau Airport in Southwest China Using Lidar Data DAI Bingbing, HE Min, YANG Jingxin, ZHANG Mingxin (589)
- Analysis of Surface Wind Speed Changes in Shanxi during 1960—2019 WANG Dayong, WANG Xiaoqiong, ZHANG Dongfeng, LIU Wenping (597)
- Applicability Evaluation of CLDAS and GLDAS Soil Temperature Data in Shaanxi Province LIU Peipei, SONG Haiqing, BAO Weiwei, LI Jingrui (604)
- Applicability Analysis of Drought Severity Index (DSI) in Inner Mongolia QU Xuebin, WANG Yanping, ZHANG Xuming, LIN Cong (612)

Applied Meteorology and Scientific Experiments

- Raindrop Spectrum Characteristics of an Artificial Precipitation Enhancement Process on Northern Slope of Qilian Mountains PANG Zhaoyun, LI Baozi, ZHANG Fengwei, CHEN Qi, LUO Han, YANG Ruihong (621)
- Optical Properties of Aerosols in Taihu Region of China SONG Tongai, WANG Jing, YU Xingna, WANG Yan, CHEN Yanying, GAO Ying, YAN Jingrui (629)
- Characteristics of Electric Loads in Nanjing and Relationship between Extreme Loads and Meteorological Conditions in Summer LI Yan, YU Jianwei, CAI Xiangning, FAN Xiaoqing, HUANG Yan (637)
- Classification of Response Levels in Lightning-Prone Areas in Liaoning Province MA Hongxu, YUAN Xiangling, ZHANG Kai, JIANG Yu (647)
- Analysis of CG Lightning Characteristics and Disaster-Causing Risk in Zhejiang Province GU Yuan, ZHANG Weibin, CUI Xuedong (654)
- Influence Experiment and Analysis of Buried-Metal Conductor on Resistance Test of Grounding Systems QIN Binquan, GUO Zaihua, CHENG Jiaqi, WU Gang, MI Xiang (662)

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: 2021 年 8 月