

## 目 次

### AI 气象应用

临近气象预报大模型“风雷”V1 版本检验及个例评估 .....	盛 杰
金荣花 张小雯 代 刊 张小玲 关 良 杨 波 张育宸 邢蓝翔 龙明盛 王建民 (389)	
CastNet:深度学习定量降水临近预报模型 .....	
..... 曾小团 谭 肇 沈玉伟 范 娇 黄荣成 周弘媛 梁 潇 黄大剑 (400)	
基于 YOLOv5 与 DeepSort 对天气雷达数据鸟杂波的识别与追踪 .....	
..... 姚 文 李松书 王海江 张 晶 (417)	
基于改进长短期记忆网络的湖南网格气温预报模型 .....	
..... 卢 姝 陈 鹤 陈静静 赵琳娜 郭田韵 (431)	
深度学习技术在洪水预报中的应用进展及思考 .....	
..... 祁海霞 彭 涛 智协飞 季 焱 殷志远 沈铁元 王俊超 向怡衡 胡 泊 (446)	
一种基于机器学习的自动气象观测站风向异常识别方法 .....	张志坚 张 静 伍光胜 (460)

### 论文

惠州前汛期暖区暴雨环流分型及其环境参量统计分析 .....	
..... 付智龙 姜 帅 李国平 陈芳丽 黄楚贤 骆 蓉 张秋明 梁惠龙 (473)	
基于云顶高度产品的 FY-4A 云导风高度再指定方法研究 .....	
..... 马博良 陆其峰 王 富 华 维 张晓虎 (484)	

### 天气、气候评述

2024 年秋季中国气候异常及成因分析 .....	李 多 章大全 孙 冷 (496)
2025 年 1 月大气环流和天气分析——暖干背景下寒潮、极端雨雪、雾-霾齐现 .....	
..... 何灵莉 符娇兰 任宏昌 (508)	

# METEOROLOGICAL MONTHLY

Vol. 51, No. 4 (Sum No. 604)

April, 2025

## Contents

### Articles

- Verification and Case Evaluation of the “Fenglei” V1 Meteorological Nowcasting Model .....  
..... *SHENG Jie JIN Ronghua ZHANG Xiaowen DAI Kan ZHANG Xiaoling*  
*GUAN Liang YANG Bo ZHANG Yuchen XING Lanxiang LONG Mingsheng WANG Jianmin* (389)
- CastNet: Deep-Learning-Based Model for Quantitative Precipitation Nowcasting ... *ZENG Xiaotuan TAN Zhao*  
*SHEN Yuwei FAN Jiao HUANG Rongcheng ZHOU Hongyuan LIANG Xiao HUANG Dajian* (400)
- Identification and Tracking of Bird Clutter in Weather Radar Data Based on YOLOv5 and DeepSort .....  
..... *YAO Wen LI Songshu WANG Haijiang ZHANG Jing* (417)
- Gridded Temperature Forecast Model in Hunan Based on Improved Long Short-Term Memory Networks .....  
..... *LU Shu CHEN He CHEN Jingjing ZHAO Linna GUO Tianyun* (431)
- Progress and Reflection on Application of Deep Learning Techniques in Flood Forecasting ..... *QI Haixia*  
*PENG Tao ZHI Xiefei JI Yan YIN Zhiyuan SHEN Tiejuan WANG Junchao XIANG Yiheng HU Po* (446)
- A Method for Identifying Abnormal Wind Direction at Automatic Weather Stations Based on Machine Learning  
..... *ZHANG Zhijian ZHANG Jing WU Guangsheng* (460)
- Statistical Analysis on Classification of Synoptic Circulation of Warm-Sector Heavy Rainfall and Its Ambient Parameters  
in Huizhou During the First Rainy Season ..... *FU Zhilong JIANG Shuai*  
*LI Guoping CHEN Fangli HUANG Chuxian LUO Rong ZHANG Qiuming LIANG Huilong* (473)
- Height Reassignment Method of FY-4A Atmospheric Motion Vectors Based on Cloud Top Height Products .....  
..... *MA Boliang LU Qifeng WANG Fu HUA Wei ZHANG Xiaohu* (484)
- Features and Possible Causes of the Climatic Anomaly in China in Autumn 2024 .....  
..... *LI Duo ZHANG Daquan SUN Leng* (496)
- Analysis of the January 2025 Atmospheric Circulation and Weather .....  
..... *HE Lingli FU Jiaolan REN Hongchang* (508)

本期责任编辑 何晓欢