

Volume 30
Number 1
March 2024

热带气象学报
2024年3月 第30卷 第1期

ISSN 1006-8775
CODEN JTMOF5

JOURNAL OF
**TROPICAL
METEOROLOGY**

Edited, published and distributed by

Journal of Tropical Meteorology Press, Guangzhou Institute of Tropical and Marine Meteorology,
China Meteorological Administration

Journal of Tropical Meteorology Press

ISSN 1006-8775



9 771006 877248

JOURNAL OF TROPICAL METEOROLOGY

Vol.30 No.1 March 2024

CONTENTS

ARTICLES	PAGE
Leading Pattern of Spring Drought Variability over East Asia and Associated Drivers ZHAO Qing-hong (赵庆红), YANG Song (杨 磊), TIAN Hong-ying (田红瑛), et al.	1
Local Climate Change Induced by Urbanization on a South China Sea Island..... HAO Yu (郝 宇), LI Lei (李 磊), CHAN Pak-wai (陈柏纬), et al.	11
An Evaluation of Tropical Cyclone Genesis Forecast over the Western North Pacific and the South China Sea from the CMA-TRAMS LI Meng-jie (李梦婕), CHEN Zi-tong (陈子通), DAI Guang-feng (戴光丰), et al.	20
Spatio-Temporal Characteristics of Heavy Precipitation Forecasts from ECMWF in Eastern China XU Tong (徐 同), TAN Yan (谭 燕), GU Wen (顾 闻)	29
Freshening of the Intermediate Waters in the Northern South China Sea over the Past Six Decades..... CHEN Xu-yang (陈栩洋), WANG Dong-xiao (王东晓), SHU Ye-qiang (舒业强), et al.	42
An Analysis of the Low Moving Speed of Landfalling Typhoon In-Fa in 2021 ZHENG Li-na (郑丽娜), LÜ Xin-gang (吕新刚), LI Rui (李 瑞)	51
Mesoscale and Microphysical Characteristics of a Double Rain Belt Event in South China on May 10–13, 2022 GUO Zhao-hua (郭照华), CHEN Yun (谌 芸), XIAO Tian-gui (肖天贵), et al.	61
Characteristics of Lightning Activity in Southeast China and its Relation to the Atmospheric Background..... ZHI Shu-lin (支树林), ZHU Jie (朱 杰), LIU Yan (刘 岩), et al.	76
Fusion SST from Infrared and Microwave Measurement of FY-3D Meteorological Satellite ZHANG Miao (张 眇), XU Na (徐 娜), CHEN Lin (陈 林)	89

JOURNAL OF TROPICAL METEOROLOGY

Vol.30 No.1 March 2024

Papers to Appear in Forthcoming Issue (*Subject to editorial change*)

- The Analysis of Summer Cold Vortex Activity Anomalies in Northeastern China and Their Relationship to the Regional Precipitation and Temperature *KONG Yang (孔 阳) et al.*
Variability of Extreme Precipitation over Northern Shanxi Province *CAI Xia (蔡 霞) et al.*
Linkage Between European and East Asian Heatwaves on Synoptic Scales *CAI Fen-ying (蔡奋颖) et al.*

Editorial Board of Journal of Tropical Meteorology

主 编: 杨 嵩 王玉清 (Editors-in-Chief)

副主编: 宋丽莉 陈 文 车慧正 赵 坤 胡 胜 张芷言 (Associate Editors-in-Chief)

编 委: Editors (按姓氏首字母排序)

陈德辉	陈桂兴	陈海山	戴永久	邓 涛	邓雪娇	丁庆华	段安民	段晚锁
端义宏	范绍佳	费建芳	冯业荣	管兆勇	简茂球	雷荔傈	雷小途	李艳萍
林丽珊	林岩銮	刘春霞	刘显通	马占宏	彭涛涌	任宏利	沈学顺	宋清涛
孙建华	谈哲敏	王春在	王东海	王东晓	王新明	王雪梅	吴 欢	吴仁广
徐建军	徐 昕	杨若文	杨修群	余 晖	俞小鼎	占瑞芬	张大林	张人禾
张旭斌	赵春生	钟水新	周波涛	周天军				

Journal of Tropical Meteorology

Publication No.: ISSN1006-8775
CN44-1409/P

Follow JTM:



Abstracted / indexed in:

ASPT (a database co-founded by relevant agencies in Chinese Academy of Sciences, Chinese Academy of Social Sciences, Peking University and China Academic Journal)

CEPS (Chinese Electronic Periodicals Service)

CJFD (Chinese Journal Full-text Database, Tsinghua University)

EBSCO Discovery Service (an EBSCO Publishing product)

JCR/SE (Journal Citation Reports/Science Edition)

ProQuest Environmental Science Collection Database

SCIE (Science Citation Index Expanded)

SCOPUS (an Elsevier product)

关于中国知网（CNKI）系列数据库作者文章著作权的声明

本刊已许可中国学术期刊（光盘版）电子杂志社在中国知网及其系列数据库产品中以数字化方式复制、汇编、发行、信息网络传播本刊全文。该社著作权使用费与本刊稿酬一并支付，不再另付。如作者不同意，请在来稿时声明，本刊将作适当处理。

Copyright and disclaimer

© Copyright 2024, Journal of Tropical Meteorology Press. All rights reserved. The Journal of Tropical Meteorology does its best to provide readers with reliable and useful information on tropical meteorology. It does not indicate, however, that the publisher, the editorial board and editors should bear any responsibility or liability whatsoever for the consequences of any inaccurate or misleading data, opinion or statement therein. The data and opinions appearing in the articles in this journal are the sole responsibility of the contributors concerned.

For full texts of the past journal articles, visit https://jtm.itmm.org.cn/archive_list_en.htm

JOURNAL OF TROPICAL METEOROLOGY

本刊由热带气象学报（英文版）编辑部编辑、出版并向国内外发行，中国气象局广州热带海洋气象研究所主办，广东省气象局主管。

Vol.30 No.1

<http://jtm.itmm.org.cn/>

E-mail: rqxb@chinajournal.net.cn

Edited, published, and distributed by

Journal of Tropical Meteorology Editorial Office, Guangzhou Institute of Tropical and Marine Meteorology, China Meteorological Administration

312, Dongguanzhuang Road, Guangzhou 510641, China Phone: (8620) 39456441

Sponsored by

Guangzhou Institute of Tropical and Marine Meteorology, China Meteorological Administration

Superintended by

Guangdong Meteorological Service

6, Fujin Road, Guangzhou 510080, China

Printed by

Guangzhou Daming Printing House

No.5, 9th Road, Pacific Industrial Block, Xintang Town, Zengcheng District, Guangzhou, Guangdong, China

March 2024

Price / Copy: ¥ 80.00