

南京信息工程大学学报(自然科学版)

第 12 卷 第 4 期 (总第 68 期) 2020 年 7 月

目 次

2015—2020 年中国分省城乡人口变化及其影响因素研究 王艳君 景丞 姜彤 翟建青 冯志强 杨陈心怡 张冉 苏布达 (395)	(395)
人工智能在短临降水预报中应用研究综述 方巍 庞林 王楠 易伟楠 (406)	(406)
本科信息安全教学研究最新进展综述 黄达明 仲盛 (421)	(421)
热带气旋生成指数对印度洋热带气旋频数变化的适用性研究 刘春雷 冯小丽 顾剑峰 廖晓晴 曹宁 徐建军 徐峰 张宇 (431)	(431)
热带印度洋夏季水汽输送特征及对南亚季风区降水的影响 陈红 (442)	(442)
1909 号超强台风“利奇马”强降水特征的诊断 谭震 梁梅 薛宇峰 徐建军 徐峰 (450)	(450)
孟加拉湾春季小型暖池对热带气旋的影响研究 Gayan Pathirana Kanchana Priyadarshani 王东晓 陈更新 Tilak Priyadarshana (460)	(460)
东印度洋水体输运的季节变化及相关盐度变化 L.A.A.N.Wickramasinghe 王卫强 刘雨 M.K.Abeyratne W.C.Hemamali K.B.S.S.J.Ekanayake (472)	(472)
基于机器学习的降雨量雷达回波数据建模与预测 陈晓平 陈易旺 施建华 (483)	(483)
基于小时降水资料研究广东省降水分布特征 蒲义良 郭柏成 叶朗明 李晓惠 高玲玉 (495)	(495)
基于遗传算法的非高斯系统随机分布控制 洪越 殷利平 (504)	(504)
可持续气象信息中心的两极 PROMETHEE 动态评价方法 张皓宇 韩莹 季正武 (510)	(510)
基于多变量非线性 DAE 子系统模型的同步发电机励磁汽门综合控制 陈蓓玉 岳华 屠壮 (515)	(515)

Journal of Nanjing University of Information Science and Technology

(Natural Science Edition)

Vol.12 No.4 (Sum No.68) July 2020

CONTENTS

- Projection of provincial urban and rural population and its influencing factors in mainland China (2015–2050)
..... *WANG Yanjun JING Cheng JIANG Tong ZHAI Jianqing*
FENG Zhiqiang YANGCHEN Xinyi ZHANG Ran SU Buda (405)
- Survey on the application of artificial intelligence in precipitation nowcasting
..... *FANG Wei PANG Lin WANG Nan YI Weinan* (420)
- A survey of recent progress on undergraduate information security teaching
..... *HUANG Daming ZHONG Sheng* (430)
- Applicability of the tropical cyclone genesis potential index to the frequency variability of tropical cyclone
in Indian Ocean *LIU Chunlei FENG Xiaoli GU Jianfeng LIAO Xiaoqing*
CAO Ning XU Jianjun XU Feng ZHANG Yu (441)
- Characteristics of summer water vapor transport over tropical Indian Ocean and its effect on precipitation
over South Asia *CHEN Hong* (449)
- Diagnosis on the heavy precipitation of typhoon Lekima
..... *TAN Zhen LIANG Mei XUE Yufeng XU Jianjun XU Feng* (459)
- Effect of spring mini-warm pool on the tropical cyclones in the Bay of Bengal; case studies
..... *Gayan Pathirana Kanchana Priyadarshani WANG Dongxiao*
CHEN Gengxin Tilak Priyadarshana (469)
- Seasonal variations of mass transport and its related salinity changes in the Eastern Indian Ocean
..... *L.A.A.N.Wickramasinghe WANG Weiqiang LIU Yu*
M.K.Abeyratne W.C.Hemamali K.B.S.S.J.Ekanayake (482)
- Rainfall modeling and prediction by radar echo data based on machine learning
..... *CHEN Xiaoping CHEN Yiwang SHI Jianhua* (494)
- Characteristics of precipitation distribution in Guangdong province based on hourly rain-gauge data
..... *PU Yiliang GUO Bocheng YE Langming LI Xiaohui GAO Lingyu* (503)
- Genetic algorithm-based stochastic distribution control for non-Gaussian systems
..... *HONG Yue YIN Liping* (509)
- Bipolar PROMETHEE dynamic evaluation approach to sustainable meteorological information center
..... *ZHANG Haoyu HAN Ying JI Zhengwu* (514)
- Excitation and valve control of synchronous generator based on multi-variable nonlinear differential-
algebraic subsystem model *CHEN Beiyu YUE Hua TU Zhuang* (520)