

# 大 气 科 学

## DAQI KEXUE

(双月刊)

2015年1月15日 第39卷 第1期

### 目 次

集合均方根滤波同化地面自动站资料的技术研究	邵长亮 闵锦忠	(1)
东亚夏季气溶胶—云—降水分布特征及其相互影响的资料分析		
.....	石睿 王体健 李树 庄炳亮 蒋自强 廖镜彪 殷长秦	(12)
基于两种潜在蒸散发算法的 SPEI 对中国干湿变化的分析	刘珂 姜大膀	(23)
土壤湿度对卫星辐射率资料直接同化的影响	杨袁慧 师春香	(37)
2007年12月南京六次雨雾过程宏、微观结构演变特征		
.....	于华英 牛生杰 刘鹏 刘畅 陆春松 黄佳欢	(47)
利用雷达资料对自动雨量计实时质量控制的方法研究		
.....	王红艳 王改利 刘黎平 江源 王丹 李丰	(59)
中国东部气溶胶在天气尺度上的辐射强迫和对地面气温的影响		
.....	廖礼 漏嗣佳 符瑜 常文渊 廖宏	(68)
双参数微物理方案的冰相过程模拟及冰核数浓度的影响试验	沈新勇 梅海霞 王卫国 黄文彦	(83)
弱天气系统强迫下北京地区对流下山演变的热动力机制	肖现 陈明轩 高峰 王迎春	(100)
地面加热与高原低涡和对流系统相互作用的一次个例研究	田珊儒 段安民 王子谦 巩远发	(125)
二流一四流球谐函数谱展开累加辐射传输方案在全球气候模式中的应用	张华 卢鹏 荆现文	(137)
东亚夏季风异常活动的多模态特征：不同再分析资料的比较分析		
.....	黄燕玲 陈海山 蒋薇 许蓓 李忠贤	(145)
青藏高原东侧四川地区夜雨时空变化特征	胡迪 李跃清	(161)
全球海洋模式对不同强迫场的响应	虎雅琼 刘海文 李阳春 徐永福	(180)
BCC_CSM 对全球海冰面积和厚度模拟及其误差成因分析		
.....	谭慧慧 张录军 储敏 吴统文 邱博 李江龙	(197)
中国大范围持续性极端低温事件的一类平流层前兆信号	施宁 布和朝鲁	(210)

# Chinese Journal of Atmospheric Sciences

(Bimonthly)

Vol.39, No.1, 15 January 2015

## CONTENTS

A Study of the Assimilation of Surface Automatic Weather Station Data Using the Ensemble Square Root Filter .....	SHAO Changliang and MIN Jinzhong ( 1 )
The Spatial and Temporal Characteristics of Aerosol–Cloud–Precipitation Interactions during Summer in East Asia .....	SHI Rui, WANG Tijian, LI Shu, ZHUANG Bingliang, JIANG Ziqiang, LIAO Jingbiao, and YIN Changqin ( 12 )
Analysis of Dryness/Wetness over China Using Standardized Precipitation Evapotranspiration Index Based on Two .....	Evapotranspiration Algorithms ..... LIU Ke and JIANG Dabang ( 23 )
The Impact of Soil Moisture Initialization on the Direct Assimilation of Satellite Radiance Data .....	YANG Yuanhui and SHI Chunxiang ( 37 )
Evolution of the Macro- and Microphysical Properties of Precipitation Fog in December 2007 in Nanjing .....	YU Huaying, NIU Shengjie, LIU Peng, LIU Chang, LU Chunsong, and HUANG Jiahuan ( 47 )
Development of a Real-Time Quality Control Method for Automatic Rain Gauge Data Using Radar Quantitative Precipitation Estimation .....	WANG Hongyan, WANG Gaili, LIU Liping, JIANG Yuan, WANG Dan, and LI Feng ( 59 )
Radiative Forcing of Aerosols and Its Impact on Surface Air Temperature on Synoptic Scale in Eastern China .....	LIAO Li, LOU Sijia, FU Yu, CHANG Wenyuan, and LIAO Hong ( 68 )
Numerical Simulation of Ice-Phase Processes Using a Double-Moment Microphysical Scheme and a Sensitivity Test of Ice Nuclei Concentration .....	SHEN Xinyong, MEI Haixia, WANG Weiguo, and HUANG Wenyuan ( 83 )
A Thermodynamic Mechanism Analysis on Enhancement or Dissipation of Convective Systems from the Mountains under Weak Synoptic Forcing .....	XIAO Xian, CHEN Mingxuan, GAO Feng, and WANG Yingchun ( 100 )
Interaction of Surface Heating, the Tibetan Plateau Vortex, and a Convective System: A Case Study .....	TIAN Shanru, DUAN Anmin, WANG Ziqian, and GONG Yuanfa ( 125 )
Application of Two-Four Stream Spherical Harmonic Expansion Approximation in a Global Climate Model .....	ZHANG Hua, LU Peng, and JING Xianwen ( 137 )
Multi-spatial Modes of East Asian Summer Monsoon Activity: Comparative Analysis of Various Reanalysis Data .....	HUANG Yanling, CHEN Haishan, JIANG Wei, XU Bei, and LI Zhongxian ( 145 )
Spatial and Temporal Variations of Nocturnal Precipitation in Sichuan over the Eastern Tibetan Plateau .....	HU Di and LI Yueqing ( 161 )
Responses of a Global Ocean Model to Different Forcing Fields .....	HU Yaqiong, LIU Haiwen, LI Yangchun, and XU Yongfu ( 180 )
An Analysis of Simulated Global Sea Ice Extent, Thickness, and Causes of Error with the BCC_CSM Model .....	TAN Huihui, ZHANG Lujun, CHU Min, WU Tongwen, QIU Bo, and LI Jianglong ( 197 )
A Specific Stratospheric Precursory Signal for the Extensive and Persistent Extreme Cold Events in China .....	SHI Ning and BUEH Cholaw ( 210 )