

# 大 气 科 学

DAQI KEXUE

(双月刊)

2014 年 1 月 15 日 第 38 卷 第 1 期

## 目 次

|                                           |                                 |
|-------------------------------------------|---------------------------------|
| 1958~2005 年中国高空大气比湿变化 .....               | 郭艳君 丁一汇 ( 1 )                   |
| 盛夏四川盆地西部地区降水年际变化及其对应的环流异常 .....           | 胡德强 陆日宇 苏秦 范广洲 ( 13 )           |
| 正地闪和负地闪预击穿脉冲序列的统计分析对比 .....               | 王宇 鄯秀书 王东方 刘明远 王志超 ( 21 )       |
| 一种改进的华西秋雨指数及其气候特征 .....                   | 蒋竹将 马振峰 刘佳 李奇临 ( 32 )           |
| 中国东南部与川渝陕甘地区夏季降水 30~60 天 CISO 的反相现象 ..... | 焦敏 管兆勇 ( 45 )                   |
| 2011 年初贵州持续低温雨雪冰冻天气成因研究 .....             | 杜小玲 高守亭 彭芳 ( 61 )               |
| 南北极区冬春季节大气平流层 CO 次峰现象 .....               | 史华锋 李倩 邵爱梅 卞建春 吕达仁 ( 73 )       |
| “7.21”暴雨过程动力因子分析和预报研究 .....               | 冉令坤 齐彦斌 郝寿昌 ( 83 )              |
| WRF-WSM3 微物理方案在青藏高原地区暴雪模拟中的改进及试验 ...      | 王坤 张飞民 孙超 王澄海 (101)             |
| 登陆台风“凡亚比”(1011) 合力散度分布及演变特征研究 .....       | 许雯 高守亭 崔晓鹏 何金海 (110)            |
| 冬季欧亚中高纬大气低频振荡的传播及其与欧亚遥相关型的关系 .....        | ..... 杨双艳 武炳义 张人禾 周顺武 (121)     |
| 副高外围对流雨带中的对流—对称不稳定及锋生的诊断分析 .....          | ..... 王宗敏 丁一汇 张迎新 田利庆 李江波 (133) |
| 冬季东亚副热带急流和温带急流协同变化与我国冷空气活动的关系 .....       | 叶丹 张耀存 (146)                    |
| 加密自动气象站雨量计资料的质量控制及其相关关系的研究 .....          | ..... 刘雨佳 陈洪滨 金德镇 齐彦斌 崔莲 (159)  |
| 同化青藏高原地区 GPSPW 数据对长江中下游地区降水预报的影响评估 .....  | ..... 朱丰 徐国强 李莉 郑晓辉 张胜军 (171)   |
| 秋季南极涛动异常对冬季中国南方降水的影响 .....                | 钱卓蕾 (190)                       |

# Chinese Journal of Atmospheric Sciences

(Bimonthly)

Vol.38, No.1, 15 January 2014

## CONTENTS

|                                                                                                                                                                                |                                                                              |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| Upper-Air Specific Humidity Change over China during 1958–2005 .....                                                                                                           | GUO Yanjun and DING Yihui ( 1 )                                              |
| Interannual Variation in the Mid-Summer Rainfall over the Western Sichuan Basin and the Associated Circulation Anomalies .....                                                 | HU Deqiang, LU Riyu, SU Qin, and FAN Guangzhou ( 13 )                        |
| Comparisons of Preliminary Breakdown Pulse Trains in Positive and Negative Cloud-to-Ground Lightning Flashes .....                                                             | WANG Yu, QIE Xiushu, WANG Dongfang, LIU Mingyuan, and WANG Zhichao ( 21 )    |
| Improved Index and Climatological Characteristics of the Autumn Rain in Western China .....                                                                                    | JIANG Zhujiang, Ma Zhenfeng, Liu Jia, and Li Qilin ( 32 )                    |
| Out-of-Phase Relationship of 30-60 Day Oscillations of Mean Climatological Summertime Rainfall between Southeastern China and the Sichuan–Chongqing–Shaanxi–Gansu Region ..... | Jiao Min and Guan Zhaoyong ( 45 )                                            |
| Study of the 2011 Freezing Rain and Snow Storm in Guizhou .....                                                                                                                | DU Xiaoling, GAO Shouting, and PENG Fang ( 61 )                              |
| Sub-Peaks of CO Concentration in the Stratosphere over Polar Regions during Winter to Spring Seasons .....                                                                     | SHI Huafeng, LI Qian, SHAO Aimei, BIAN Jianchun, and LÜ Daren ( 73 )         |
| Analysis and Forecasting of Heavy Rainfall Case on 21 July 2012 with Dynamical Parameters .....                                                                                | RAN Lingkun, QI Yanbin, and HAO Shouchang ( 83 )                             |
| Development and Validation of WRF–WSM3 Scheme in Simulation of Snowstorm in the Tibetan Plateau .....                                                                          | WANG Kun, ZHANG Feimin, SUN Chao, and WANG Chenghai ( 101 )                  |
| Study on Total Force Divergence Distribution and Evolution Features of Landfalling Typhoon Fanapi (1011) .....                                                                 | XU Luan, GAO Shouting, CUI Xiaopeng, and HE Jinhai ( 110 )                   |
| Propagation of Low-Frequency Oscillation over Eurasian Mid–High Latitude in Winter and Its Association with the Eurasian Teleconnection Pattern .....                          | YANG Shuangyan, WU Bingyi, ZHANG Renhe, and ZHOU Shunwu ( 121 )              |
| Analysis of Convective-Symmetric Instabilities and Frontogenesis in a Convective Rain Band on the Northwest Edge of WPSH .....                                                 | WANG Zongmin, DING Yihui, ZHANG Yingxin, TIAN Liqing, and LI Jiangbo ( 133 ) |
| Association of Concurrent Variation between the East Asian Polar Front and Subtropical Jets with Winter Cold Air Activity in China .....                                       | YE Dan and ZHANG Yaocun ( 146 )                                              |
| Quality Control and Representativeness of Automatic Weather Station Rain Gauge Data .....                                                                                      | LIU Yujia, CHEN Hongbin, JIN Dezhen, QI Yanbin, and CUI Lian ( 159 )         |
| An Assessment of the Impact on Precipitation Prediction in the Middle and Lower Reaches of the Yangtze River Made by Assimilating GPSPW Data in the Tibetan Plateau .....      | ZHU Feng, XU Guoqiang, LI Li, ZHENG Xiaohui, and ZHANG Shengjun ( 171 )      |
| The Impact of Autumn Antarctic Oscillation (AAO) on Winter Precipitation in Southern China .....                                                                               | QIAN Zhuolei ( 190 )                                                         |