

应用气象学报

第3卷 总目录

第1期

论 著

改进初估值温度反演及其结果分析	张凤英(1)
若干声雷达回波图象的分析	潘乃先 陈家宜(11)
低层环境风场对积云模拟的作用	孔凡铀(20)
夜间城市大气边界层和气溶胶的相互作用	李乐泉 周明煜 李兴生(32)
梅雨锋上暴雨云团活动的个例分析	胡伯威 潘鄂芬 顾中华(42)
冬季北太平洋爆发性气旋的天气气候特征	齐桂英(51)
采用青海两个树木年轮年表重建局地过去降水的初步分析	张志华 吴祥定(61)
我国温度变化与冬季采暖气候条件的探讨	张家诚 高素华 潘亚茹(70)
气候与上海蔬菜均衡供应的优化规划	杨星卫 薛正平(76)
以Schrödinger 方程为例子介绍直接解法及其在波与波碰撞中的应用	高守亭 刘坤儒(84)
大气中的广义 Clebsch 变换和位涡、螺旋性守恒定理	罗德海(91)
XENIX 驱动程序设计及高分辨大屏幕显示开发	陈少林 罗建国(98)

短 论

梅雨锋暴雨的不平衡场	赵瑞星 陶诗言(108)
东亚夏季环流的中期变动特征和可能机制	喻世华 钱贞成(114)
海洋气象导航数据库及其应用	林明智 余鹤书(120)
永暑礁夏季风期间海气要素的谱特征	周学群 张启和(125)

书刊评介

评《热带气象学》	韦有暹(50)
----------------	---------

第2期

论 著

静止气象卫星图像实时处理方法	徐建平等(129)
一次冷锋后飑线的大振幅重力波特性分析	陆汉城 吕梅 何齐强(136)
1980年夏季华北干旱时期东亚阻塞形势的位涡分析	毕慕莹 丁一汇(145)
东北夏季副高后部 MCC 暴雨的诊断分析	孙力 汪秀清 吴基烈(157)
厄尔尼诺过程赤道太平洋海温增暖与传播特征	谭锐志 容广坝(165)
北半球 50hPa 位势高度距平场的 EOF 分析及其与对流层的比较	顾润源 刘晓东 王玉玺(173)

热带环流异常与我国夏季降水分布的关系	何敏	李小泉(181)
近海台风结构和能量平衡的对比研究	王作述	何煜光(190)
夏季青藏高原低涡的能量场分析	杨洋	罗四维(198)
冬季亚洲大陆冷高压形成和发展的物理机制研究	夏友龙	朱抱真(206)
从紫外到中红外谱区冰的光学常数与温度关系的研究	张国栋	许丽生(212)
黑河试验中心区的气候特征	刘树华	张霁琛 陈家宜(220)

短论

厄尔尼诺事件与中国降水及历史旱涝	姚辉	李栋梁(228)
我国冷空气活动的特征及其与欧亚大陆积雪的关系	仇永康	李晓东 仇永炎(235)
两次夏季江淮气旋的动能平衡过程及其与大尺度环流的关系		侯定臣(242)
冬小麦农田日蒸散量的计算		李临颖(248)

研究简报

长白山区农业气候资源及其合理开发利用研究		马树庆(254)
----------------------------	--	----------

书刊评介

评我国第一本气候蓝皮书的发表		张家诚(256)
----------------------	--	----------

第3期

论著

中尺度业务预报试验数值模式系统	王鹏云	潘在桃	徐宝新等(257)
用卫星遥感资料反演气象参数的误差分析及数值试验	张文建	黎光清	董超华(266)
热带气旋路径趋势数值预报的试验研究	王琴		朱永褪(273)
用青藏高原考察订正 FGGE II b 资料作中期预报的数值试验	刘晓东	罗四维	纪立人(281)
近地层内湍流特征量的参数化研究	李兴生	贡辉军	付秀华(289)
球面正压粘性大气的运动特征			许习华(299)
北半球 30hPa 环流春季转变过程的诊断研究	葛玲		郭树军(306)
福建古田人工降水试验区自然云雨特征的卫星云图分析	林长城		夏浣清(314)
影响长江流域异常旱涝的因子分析	魏凤英		张先恭(321)
三维空气质点轨迹的计算		朱艳秋	廖洞贤(328)
夏、秋积云的雷达回波和降水特征及其估算	徐永胜	刘耀宗	韩嗣荧(334)

综述

近十年数值天气预报的回顾和展望			廖洞贤(340)
-----------------------	--	--	----------

短论

青海可可西里无人区温度、降水分布特征			张琳(347)
稳健回归的反复加权最小二乘迭代解法及其应用	施能		王建新(353)
有限区域内球谐展开的误差分析	游性恬		张冬峰(359)
吉林省玉米贮存、运输与气候条件的关系	王惠清	魏春秀	倪超玉(363)
NOAA-9 与 NOAA-10 的 AVHRR 通道 1、2 反射率的对比和定标			陈乾 郭锐(367)
地理变差及气候相似距与早、中稻引种适应性的研究	冯达权		彭国照(371)
流线客观分析的一种方法			张德祥(376)

研究简报

- 一种预报最大降雹大小的方法 刘棠福 刘桂枝 李 兰等(383)

第 4 期

论 著

- 高层冷涡对台风路径影响的数值模拟和动力分析 费 亮 李小凡(385)
 中尺度非均一边界层气候的数值研究:(I)敏感性试验 陈 江 陈万隆 陈宇能等(394)
 气象卫星台风云图的自动识别方法及其应用 李 俊 周凤仙(402)
 爆炸对云滴碰并增长的实验研究 陈汝珍 鄢大雄 蒋耿旺等(410)
 吉林省 1980—1987 年播云降雨效果检验及其判据 汪学林 刘 健(418)
 植物群落结构与太阳辐射的垂直分布及其变化 王信理 李相玺(424)
 不稳定层结下的热岛环流 李国平 刘凯文(431)
 南岭准静止锋附近加热场特征及其对锋面维持的作用 何财福 吴宝俊 彭治班(437)
 北太平洋温带气旋的气候特征 齐桂英(444)
 中国西部降水资源的稳定性研究 李栋梁 彭素琴(451)
 国家气象中心准业务有限区客观分析方案 朱宗申 汪厚君 张跃堂(459)
 大同市空气污染对太阳辐射的影响 胡慧敏 郭宏泰(468)

专题评述

- ENSO 事件对我国天气气候的影响 刘永强 丁一汇(473)

短 论

- 冬季极涡的长期预报 任广成(482)
 次级环流在强对流天气产生和演变中的作用 杨越奎 张 铭(487)
 三层模式中的对称不稳定 张立凤 张 铭(492)
 测风雷达坐标测定误差与测风误差的关系及其应用 尹愚发(496)
 饱和水汽压计算公式的分析比较及经验公式的改进 董双林 崔宏光(501)

研究简讯 (509)(511)

消 息 (491)(510)(512)

增 刊

论 著

- 我国东部夏季降水分布的季度预报方法 廖荃荪 赵振国(1)
 科威特油井大火和菲律宾及日本火山爆发对气候影响的敏感性试验
 王 坚 史久恩 孙力强等(10)
 综合的遥感反演算法的数值试验 黎光清 张明华 董超华(18)
 国家气象中心和欧洲中期预报中心的中期数值预报业务系统客观分析对比
 袁国庆 陶士伟 马清云(26)
 国家气象中心全球资料四维同化试验 朱宗申 石曙卫 张跃堂(33)
 大气边界层廓线的相似律预告 李兴生 付秀华 贡辉军(41)
 层状云酸化数值模拟 刘奇俊 胡志晋 丁国安等(52)
 碘化银消除过冷低云试验结果 陈万奎 严采繁 吴心遂等(59)

静止气象卫星水汽通道位置的选择	金燕 黄意玢 王维和(67)
用卫星和雷达资料进行大范围降水估计	丁峰 陈宏尧 周秀骥(74)
大型应用程序分析系统简介	颜宏 杨学胜 皇甫雪官(82)
华北强对流云团的活动及其天气特征	郑新江 赵亚民(88)
1980年黄河中下游干旱期的热源和热汇的诊断分析	李月洪 刘永强 丁一汇(93)
大别山区林木第一性生产力的气候学估算	霍治国 张养才 鲍腾起(100)
中国海海面的辐射收支	翟盘茂(107)
短 论	
我国气温变化诊断方法探讨	祝昌汉(114)
近40年我国东部夏季旱涝气候特征	宋连春(119)
关于总日射表的热稳定时间	王炳忠 葛洪川 邸乃力等(124)
消 息	(87)

QUARTERLY JOURNAL OF APPLIED METEOROLOGY

Vol. 3 CONTENTS

No. 1

ARTICLES

- An Improved Initialization Temperature Inversion and Its Preliminary Results over China Zhang Fengying(1)
- The Description of Some Sodar Echo Patterns Pan Naixian, Chen Jiayi(11)
- The Effects of Ambient Wind on Simulating Convective Clouds Kong Fanyou(20)
- The Interaction between Nocturnal Urban Atmospheric Boundary Layer and Aerosols Li Lequan, Zhou Minyu, Li Xingsheng(32)
- A Case Study on the Activity of Cloud Clusters with Heavy Rain in Meiyu Front Hu Bowei, Pan Efen, Gu Zhonghua(42)
- Synoptic Climatological Characteristics of Explosive Cyclones over North Pacific in Winter Qi Guiying(51)
- Utilizing Two Qinghai Tree-Ring Chronologies to Reconstruct and Analyze Local Historical Precipitation Zhang Zhihua, Wu Xiangding(61)
- Investigation on the Relationship between Temperature Change and Winter Heating in China Zhang Jiacheng, Gao Suhua, Pan Yaru(70)
- Optimization of the City Vegetable Supply Based on Climate Yang Xingwei, Xue Zengping(76)
- Introduction to Direct Solution Method and Its Application to Wave-Wave Collisions Gao Shouting, Liu Kunru(84)
- Generalized Clebsch Transformation and the Conservative Theorem of Potential Vorticity and Spirality in the Atmosphere Luo Dehai(91)
- Device Driver Design and High Resolution Graphics Display Development in XENIX/386 System Chen Shaolin, Luo Jianguo(98)

SHORT CONTRIBUTIONS

- The Imbalance Field of the Heavy Rainfall in the Meiyu Front Zhao Ruixing, Tao Shiyan(108)
- Features and Probable Mechanism of the Medium-Range Variation of East-Asia Summer Monsoon Circulation System Yu Shihua, Qian Zhencheng(114)
- Ocean-Meteorouting Data-Base and Its Application Lin Mingzhi, Yu Heshu(120)
- Spectrum Analysis of Ocean-Atmosphere Elements for Yongshu Reef during Summer of 1989 Zhou Xuequn, Zhang Qihe(125)

No. 2

ARTICLES

- The Real Time Processing for Geostationary Meteorological Satellite Image Data
 Xu Jianping, Wang Dachang, Hou Chengqun, et al. (129)
- Characteristics of Large Amplitude Gravity Wave of Squall Line behind the Cold Front
 Lu Hancheng, Lü Mei, He Qiqiang (136)
- A Study of Budget of Potential Vorticity of Blocking High during the Drought Period in Summer of 1980
 Bi Muyun, Ding Yihui (145)
- A Diagnostic Study of a MCC with Severe Rain over Northeast China in Summer
 Sun Li, Wang Xiuqing, Wu Jilie (157)
- The Warming and Propagating Features of the Equatorial Pacific Surface Temperature during El Nino Events
 Tan Ruizhi, Rong Guangxun (165)
- The EOF Analysis of 50hPa Potential Height Anomaly Field in the Northern Hemisphere and Its Comparison
 with the Tropospheric Field Gu Runyuan, Liu Xiaodong, Wang Yuxi (173)
- The Relationships between Summer Rainfall in China and Tropical Circulation Anomaly
 He Min, Li Xiaoquan (181)
- The Study on Structure of the Offshore Tropical Storms and the Comparative Diagnoses of Energy Budget
 Wang Zuoshu, He Yuguang (190)
- Energy Analyses of Vortices over the Qingzang Plateau in Summer Yang Yang, Luo Siweri (198)
- Mechanism of Formation and Evolution Process of the Asian Continental Cold High in Winter
 Xia Youlong, Zhu Baozhen (206)
- A Study of the Relationships between Optical Constants of Ice and Temperatures in the Spectral Region
 from the Ultraviolet to the Middle Infrared Zhang Guodong, Xu Lisheng (212)
- The Climatic Characteristics over the Hei He River Experimental Central Area
 Liu Shuhua, Zhang Aichen, Chen Jiayi (220)
- SHORT CONTRIBUTIONS**
- The Relationship between El Nino Events and the Rainfall, Historical Drought and Waterlogging in China
 Yao Hui, Li Dongliang (228)
- Statistical Features of the Cold Waves Invaded China and Their Relation to the Snow Cover Area over the
 Eurasian Continent Qiu Yongkang, Li Xiaodong, Qiu Yongyan (235)
- The Kinetic Energy Balance of Two Summer Cyclones over the Changjiang Huaihe Valley and Its Relations
 with the Large Scale Circulation Hou Dingchen (242)
- The Calculation of Daily Evapotranspiration in the Field of Winter Wheat Li Linying (248)
- NOTES** Ma Shuqing (254)

No. 3

ARTICLES

- Mesoscal Operational Forecast Experimental Model System
 Wang Pengyun, Pan Zaitao, Xu Baoxin, et al. (257)
- The Error Characteristics of Meteorological Parameters Retrieved from Satellite Remote Sensing Measurements
 and the Error Simulation Tests Zhang Wenjian, Li Guangqing, Dong Chaohua (266)
- A Study on the Numerical Prediction of Tropical Cyclone Track Tendency Wang Qin, Zhu Yongti (273)

Numerical Study of Mid-Range Weather Forecast Using Corrected FGGE-IIIb Data over Qinghai-Xizang Plateau	Liu Xiaodong, Luo Siwei, Ji Liren(281)
A Study on Parameterization of Turbulent Characteristic Amounts at Near Surface Layer	Li Xingsheng, Gong Huijun, Fu Xiuhua(289)
The Characters of Viscous Barotropic Atmosphere on Sphere	Xu Xihua(299)
A Diagnostic Study of the Transition of the 30hPa Circulation in Northern Spring	Ge Ling, Guo Shujun(306)
Satellite Image Analysis on the Natural Rain Clouds in Gutian, Fujian Province	Lin Changcheng, Xia Huanqing(314)
An Analysis on Control Factors of Drought/Flood in the Changjiang Valley	Wei Fengying, Zhang Xiangong(321)
An Investigation for Computing Three-Dimensional Trajectory	Zhu Yanqiu, Liao Dongxian(328)
Study on the Features of Radar Echo and Rainfall of Natural Cumulus in Summer and Autumn and the Estimation of Rainfall	Xu Yongsheng, Liu Yaozun, Han Siying(334)
REVIEW	
Review on the Numerical Weather Prediction in the Past Decade and Its Prospects	Liao Dongxian(340)
SHORT CONTRIBUTIONS	
Characteristics of Temperature and Rainfall Distribution in the Uninhabitable Area Kekexili, Qinghai Province	Zhang Lin(347)
A Method of Iteratively Reweighted Least Square and Its Application	Shi Neng, Wang Jianxin(353)
The Error Analysis of a Spherical Harmonic Expanding in Limited Regions	You Xingtian, Zhang Dongfeng(359)
The Relationship of Corn Storage and Transport with Climatological Conditions in Jilin Province	Wang Huiqing, Wei Chunxiu, Ni Chaoyu(363)
Comparison of AVHRR Channel 1 and 2 Albedo Data between NOAA-9 and NOAA-10 and Its Calibration	Chen Qian, Guo Ni(367)
Study on the Relation of Geographic Conditions Variation and Deviation of Climatic Analogue with the Adaptability of Rice Varieties Introduced	Fong Daquan, Peng Guozhao(371)
An Algorithm for Objective Analysis of Streamline	Zhang Dexiang(376)

No. 4

ARTICLES

Numerical Simulation and Dynamic Analysis of Influence of Upper-Tropospheric Cold Vortex on the Track of Typhoon	Fei Liang, Li Xiaofan(385)
A Numerical Study on Mesoscale Inhomogeneous Boundary Layer Climate: Part(I) Sensitivity Experiment	Chen Jiang, Chen Wanlong, Chen Yuleng, et al. (394)
Automatic Method and Its Application of Recognizing Satellite Typhoon Imagery	Li Jun, Zhou Fengxian(402)
A Laboratory Study of Explosion Effects on Cloud Droplets Coalescence	Chen Ruzhen, Feng Daxiong, Jiang Gengwang, et al. (410)

The Effect Test and Criterion of Clouds Seeding during 1980—1987 in Jilin Province	Wang Xuelin, Liu Jian (418)
Canopy Structures and Radiation Regimes and Their Variations	Wang Xinli, Li Xiangxi (424)
The Heat Island Circulation in Unstable Urban Boundary Layer	Li Guoping, Liu Kaiwen (431)
Characteristics of Heating Distribution and Its Influence on the Frontal Maintenance nearby the Front with Continuous Rain	He Caifu, Wu Baojun, Peng Zhiban (437)
Climatic Characteristics of North Pacific Extratropical Cyclones	Qi Guiying (444)
Stability of Precipitation Resources in Western China	Li Dongliang, Peng Suqin (451)
Quasi-Operational Limited Area Objective Analysis Scheme in the National Meteorological Centre	Zhu Zongshen, Wang Houjun, Zhang Yuetang (459)
The Influence of Air Pollution on Solar Insolation in the Datong City	Hu Huiming, Guo Hongtai (468)
REVIEW	
Influence of ENSO Events on Weather and Climate of China	Liu Yongqiang, Ding Yihui (473)
SHORT CONTRIBUTIONS	
Long-Range Forecast for Winter Polar Vortex	Ren Guangcheng (482)
The Role of Secondary Circulation in the Initiation and Evolution of Severe Convective Weather	Yang Yuekui, Zhang Ming (487)
The Symmetric Instability in Three Layer Model	Zhang Lifeng, Zhang Ming (492)
The Relationships between Upper Wind Errors and Balloon Coordinate Errors Sounded by Radar and Their Utilization	Yin Yufa (496)
Analysis of Calculating Formula and Improvement of Empirical Formula for Saturation Vapour Pressure	Dong Shuanglin, Cui Hongguang (501)
NOTES	(509)(511)
NEWS	(491)(510)(512)

Supplementary Issue

ARTICLES

A Seasonal Forecasting Scheme on Precipitation Distribution in Summer in China	Liao Quansun, Zhao Zhenguo (1)
A Numerical Experiment of Climatic Effects from Burning Oil Wells in Kuwait and Exploding Volcanoes in Philippines and Japan	Wang Jian, Shi Jiuen, Sun Liqiang, et al. (10)
Numerical Experiment of a Synthesized Remote Sensing Retrieval Algorithm	Li Guangqing, Zhang Minghua, Dong Chaochua (18)
Comparison between NMC SMA and ECMWF Operational Objective Analysis	Qiu Guoqing, Tao Shiwei, Ma Qingyun (26)
The Test of Global Four Dimensional Data Assimilation in NMC	Zhu Zongshen, Shi Shuwei, Zhang Yuetang (33)
On Similarity Profiles Predicted in the Boundary Layer	Li Xingsheng, Fu Xiuhua, Gong Huijun (41)
Numerical Simulation on the Acidification of Stratiform Clouds	

.....	Liu Qijun, Hu Zhijin, Ding Guoan, et al. (52)
An Experiment on Supercooled Lower Cloud Dissipation by Seeding AgI	
.....	Chen Wankui, Yan Caifan, Wu Xinsui, et al. (59)
A Study on Selection of Water Vapor Channel of Geostational Meteorological Satellite	
.....	Jin Yan, Huang Yibin, Wang Weihe (67)
Combinig Satellite with Radar Data for Estimating Precipitation on Large-Scale	
.....	Ding Feng, Chen Hongyao, Zhou Xiuji (74)
A Description of Large Scale Application Program Analysis System	
.....	Yan Hong, Yang Xuesheng, Huangfu Xueguan (82)
Activities and Weather Characteristics of Severe Convective Cloud Cluster in North China	
.....	Zheng Xinjiang, Zhao Yamin (88)
Diagnostic Analysis on the Distribution of Apparent Heat Sources and sinks in the Mid-Lower Reaches of the Yellow River in the Drought Period of 1980	Li Yuehong, Liu Yongqiang, Ding Yihui (93)
A Study on Climatological Estimation of the Forest Trees Primary Productivity in the Dabie Mountainous Area	Huo Zhiguo, Zhang Yangcai, Bao Tengqi (100)
Radiation Budget of the China Sea	Zhai Panmao (107)
SHORT CONTRIBUTIONS	
A Diagnostic Method of the Air Temperature Change Trend in China	Zhu Changhan (111)
A Study of the Characteristics of Summer Dryness and Wetness in East of China during 40 Years	
.....	Song Lianchun (119)
The Thermal Stable Time of Pyranometers	Wang Bingzhong, Ge Hongchuan, Di Naili, et al. (124)
NOTES	(87)