# TABLE OF CONTENTS

## PART 1

### CLIMATE CHANGE AND ATMOSPHERE

**A GROUND-BASED VALIDATION OF GOSAT-OBSERVED ATMOSPHERIC CO₂ IN INNER-MONGOLIAN GRASSLANDS**

X Qin, L Lei, M Kawasaki, M Oohasi, Z Zeng

**A STUDY ON LAND SURFACE PHENOLOGY IN EASTERN CHINA BASED ON SPOT/VGT DATASETS**

Guifeng Han, Hongxia Xie

**AEROSOL OPTICAL DEPTH INVESTIGATED WITH SATELLITE REMOTE SENSING OBSERVATIONS IN CHINA**

Hu Die, Zhang Lei, Wang Hongbin

**AEROSOL VERTICAL DISTRIBUTION CHARACTERISTICS OVER THE TIBETAN PLATEAU**

Z Q Deng, Y X Han, Q Zhao, J Li

**ANALYZING PHENOLOGICAL CHANGES WITH REMOTE SENSING DATA IN CENTRAL ASIA**

L Lu, H Guo, C Kuenzer, I Klein, L Zhang, X Li

**ASSESSMENT OF AEROSOL MODELS TO AOD RETRIEVAL FROM HJ1 SATELLITES**

Zhang Yuhuan, Li Zhengqiang, Hou Weizhen, Li Donghui, Zhang Ying, Ma Yan

**COMPARISON OF THREE NDVI TIME-SERIES FITTING METHODS IN CROP PHENOLOGY DETECTION IN NORTHEAST CHINA**

Meng Wang, Fulu Tao

**CRYOCLIM: A NEW SYSTEM AND SERVICE FOR CLIMATE MONITORING OF THE CRYOSPHERE**

R Solberg, M A Killie, L M Andreassen, M König

**DECARBONISING CITIES AND THE ROLE OF REMOTE SENSING FOR PLANNING, DEVELOPING, AND MONITORING LOW CARBON PRECINCTS**

J M Bunning

**EVALUATING SATELLITE OBSERVED CO₂ COLUMN BY A 3-D ATMOSPHERIC TRANSPORT MODEL**

X H Guan, L P Lei, S S Hou

**FOREST CARBON RESEARCH IN INNER MONGOLIA: CURRENT KNOWLEDGE, OPPORTUNITY AND CHALLENGE**

Li Shuyong, Huang Mei, Li Shenggong

**IMPACT OF AEROSOLS ON RADIATION DURING A HEAVY HAZE EVENT IN BEIJING**

Wang Yan, Li Zhengqiang, Zhang Ying, Wang Qiang, Ma Jianzhong

**IMPROVING CALCULATION ACCURACIES OF ACCUMULATION-MODE FRACTIONS BASED ON SPECTRAL OF AEROSOL OPTICAL DEPTHS**

Zhang Ying, Li Zhengqiang, Wang Yan

**INCREASING IN TROPOSPHERIC NITROGEN DIOXIDE OVER THE NORTH-SOUTH TRANSECT OF NORTHEAST ASIA DURING 1996-2010**

Cheng Miaomiao, Jiang Hong, Guo Zheng

**MARS SURFACE CHANGE DETECTION FROM MULTI-TEMPORAL ORBITAL IMAGES**

Kaichang Di, Yiliang Liu, Wemin Hu, Zongyu Yue, Zhaoqin Liu

**MOBILE ATMOSPHERIC SENSING USING VISION APPROACH**

Yuchun Huang, Weiwhong Cui, Yi Rui

**MONITORING DROUGHT USING MULTI-SENSOR REMOTE SENSING DATA IN CROPLAND OF GANSU PROVINCE**

Linglin Zeng, Jie Shan, Daxiang Xiang

**MONITORING RESPONSES OF MASON PINE TO ACID RAIN IN CHINA BASED ON REMOTE SENSING VEGETATION INDEX**

Jiaxin Jin, Hong Jiang, Chunliang Hou, Xinying Zhang, Ying Wang

**MULTIPLE DATA FUSION FOR RAINFALL ESTIMATION USING A NARX-BASED RECURRENT NEURAL NETWORK – THE DEVELOPMENT OF THE REINN MODEL**

M R C O Ang, R M Gonzalez, P P M Castro
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A ROBUST ANOMALY BASED CHANGE DETECTION METHOD FOR TIME-SERIES REMOTE SENSING IMAGES</td>
<td>366</td>
</tr>
<tr>
<td>AN ASSESSMENT OF LAND-USE/LAND-COVER CHANGE OF BISTRISHKO BRANISHTE BIOSPHERE RESERVE USING LANDSAT DATA</td>
<td>372</td>
</tr>
<tr>
<td>AN INTEGRATED FRAMEWORK FOR EVALUATING THE EFFECTS OF DEFORESTATION ON ECOSYSTEM SERVICES</td>
<td>380</td>
</tr>
<tr>
<td>ANALYSIS ON THE CHANGE OF GRASSLAND COVERAGE IN THE SOURCE REGION OF THREE RIVERS DURING 2000-2012</td>
<td>386</td>
</tr>
<tr>
<td>ANALYZING THE LAND USE CHANGES IN THE POYANG LAKE REGION</td>
<td>394</td>
</tr>
<tr>
<td>ASSESSING RELIABILITY OF CLASSIFICATION IN THE MOST INFORMATIVE SPECTRAL REGIONS OF HYPERSPECTRAL IMAGES</td>
<td>401</td>
</tr>
<tr>
<td>ASSESSMENT OF LAND DEGRADATION USING TIME SERIES TREND ANALYSIS OF VEGETATION INDICATORS IN OTINDAG SANDY LAND</td>
<td>409</td>
</tr>
<tr>
<td>AUTOMATED TREE CROWN DELINEATION FROM IMAGERY BASED ON MORPHOLOGICAL TECHNIQUES</td>
<td>415</td>
</tr>
<tr>
<td>A COMPARISON OF MULTI-RESOURCE REMOTE SENSING DATA FOR VEGETATION INDICES</td>
<td>421</td>
</tr>
<tr>
<td>ECOLOGICAL RISK CAUSED BY LAND USE CHANGE IN THE COASTAL ZONE: A CASE STUDY IN THE YELLOW RIVER DELTA HIGH-EFFICIENCY ECOLOGICAL ECONOMIC ZONE</td>
<td>428</td>
</tr>
<tr>
<td>ESTIMATING HOURLY VARIATION IN PHOTOSYNTHETICALLY ACTIVE RADIATION ACROSS THE UK USING MSG SEVIRI DATA</td>
<td>434</td>
</tr>
<tr>
<td>EXTREME DROUGHT-INDUCED TREND CHANGES IN MODIS EVI TIME SERIES IN YUNNAN, CHINA</td>
<td>441</td>
</tr>
<tr>
<td>FOREST CLASSIFICATION BASED ON FOREST TEXTURE IN NORTHWEST YUNNAN PROVINCE</td>
<td>447</td>
</tr>
<tr>
<td>FOREST HEIGHT INVERSION USING DUAL-POL POLARIMETRIC SAR INTERFEROMETRY</td>
<td>455</td>
</tr>
<tr>
<td>INVERSION OF CHLOROPHYLL CONTENTS BY USE OF HYPERSPECTRAL CHRIS DATA BASED ON RADIATIVE TRANSFER MODEL</td>
<td>459</td>
</tr>
<tr>
<td>LAND USE CHANGE AND PREDICTION IN THE BAIMAHE BASIN USING GIS AND CA-MARKOV MODEL</td>
<td>465</td>
</tr>
<tr>
<td>LARGE-SCALE FOREST RESOURCE DYNAMIC MONITORING USING WORLDVIEW-2 DATA—A CASE STUDY IN PINGTAN ISLAND, FUJIAN PROVINCE, CHINA</td>
<td>470</td>
</tr>
<tr>
<td>MAPPING MOUNTAIN MEADOW WITH HIGH RESOLUTION AND POLARIMETRIC SAR DATA</td>
<td>476</td>
</tr>
<tr>
<td>PHENOLOGICAL CHARACTERISTICS OF THE MAIN VEGETATION TYPES ON THE TIBETAN PLATEAU BASED ON VEGETATION AND WATER INDICES</td>
<td>482</td>
</tr>
</tbody>
</table>
POTENTIAL PLANT BIOMASS ESTIMATION THROUGH FIELD MEASUREMENT AND VEGETATION COVER MAPPING USING ALOS SATELLITE IMAGERY: CASE STUDY OF FUJYOSHIDA CITY, JAPAN

T Doko, W Chen, O Qazi, S Okabayashi, D Meguro, T Kanamori, M Jones, C Kawata, T Yagasaki, T Ichinose, K Sasaki

PRELIMINARY RESEARCH ON GRASSLAND FINE-CLASSIFICATION BASED ON MODIS

Z W Hu, S Zhang, X Y Yu, X S Wang

REMOTE SENSING MONITORING ON SOIL EROSION BASED ON LUCC IN BEIJING MOUNTAIN AREAS

Chen Gaoying

RESPONSE OF VEGETATION TO CLIMATE CHANGE IN THE DRYLANDS OF EAST ASIA

L Dai, L Zhang, K Wang, R L Wang

STUDY ON THE FOREST VEGETATION RESTORATION MONITORING USING HJ-1A HYPERSONTAL DATA

Zhang Chuan, Ye Fawang, He Haixia, Liu Hongcheng

TEXTURE CLASSIFICATION OF VEGETATION COVER IN HIGH ALTITUDE WETLANDS ZONE

Zou Wentao, Wu Bingfang, Ju Hongbo, Liu Hua

VIRTUAL SATELLITE CONSTRUCTION AND APPLICATION FOR IMAGE CLASSIFICATION

W G Su, F Z Su, C H Zhou

DISASTER REDUCTION AND RESPONSE MANAGEMENT

A GIS-BASED STATISTICAL MODEL FOR RAPID LANDSLIDE SUSCEPTIBILITY MAPPING IN THE BEICHUAN-PINGWU AREA, SICHUAN, CHINA

Y Chen, Q J Wang

A NEW FAST METHOD FOR EARTHQUAKE-TRIGGERED SECONDARY GEOLOGICAL HAZARD INFORMATION EXTRACTION FROM HIGH-RESOLUTION REMOTE SENSING IMAGERY

Hui Li, Linhai Jing, Qichong Lin, Qingjie Liu, Yu Chen

A STUDY ON SPREADING DIRECTION OF COAL-FIRE BASED WITH TIR REMOTE SENSING IN WUDA COALFIELD FROM 2000 TO 2006, NORTHERN CHINA

H-Y Huo, X-G Jiang, X-F Song, Z-Y Ni, C-X Gao, Y-Z Zhang, L Liu

AN ATTEMPT OF USING STRAIGHT-LINE INFORMATION FOR BUILDING DAMAGE DETECTION BASED ONLY ON POST-EARTHQUAKE OPTICAL IMAGERY

Laigen Dong, Jie Shan, Yuanxin Ye

ANALYSIS AND INTERPRETATION OF TSUNAMI DAMAGE CAUSED BY THE 2011 JAPAN EARTHQUAKE USING ENVISAT ASAR IMAGES

Yanmei Zhang, Zaisen Jiang, Ying Fang, Xiao Cheng

BASIN DIVISION METHOD FOR TIN-BASED DEM WITH FACE-NODE-EDGE FLOW MODE

Z F Li, L X Wu, Z X Zhang, Z H Xu, Y X Liu

DEBRIS-FLOWS SCALE PREDICTIONS BASED ON BASIN SPATIAL PARAMETERS CALCULATED FROM REMOTE SENSING IMAGES IN WENCHUAN EARTHQUAKE AREA

Huaiqian Zhang, Tianhe Chi, Jianrong Fan, Tianyue Liu, Wei Wang, Lina Yang, Yuan Zhao, Jing Shao, Xiaojing Yao

DYNAMIC MONITORING OF YIN XU SITE BY REMOTE SENSING

Ruixia Yang, Yanyan Peng

EVALUATION OF TRMM PRECIPITATION PRODUCT FOR METEOROLOGICAL DROUGHT MONITORING IN HAI BASIN

Nana Yan, Bingfang Wu, Sheng Chang, Xin Bu

STUDY ON METHOD OF GEOHAZARD CHANGE DETECTION BASED ON INTEGRATING REMOTE SENSING AND GIS

Zhenzhen Zhao, Qin Yan, Zhengjun Liu, Chengfeng Luo

STUDY ON THE CONSTRUCTION OF MULTI-DIMENSIONAL REMOTE SENSING FEATURE SPACE FOR HYDROLOGICAL DROUGHT

Xinchen Xiang, Dehao Tan, Yuantai Cui, Xiongfeng Wen, Shaozhong Shen, Zhe Li

EXTRACTION METHOD FOR EARTHQUAKE-COLLAPSED BUILDING INFORMATION BASED ON HIGH-RESOLUTION REMOTE SENSING

Peng Chen, Jian Wu, Yaolin Liu, Jing Wang
THE STUDY OF REMOTE SENSING DYNAMIC MONITORING FOR COALFIELD FIRE AREA IN SHUIXIGOU, XINJIANG
Jun Xia, Tashpolat-Tiyip

COASTAL AND MARINE RESOURCES AND DYNAMICS

3-DIMENTIONAL MAPPING COASTAL ZONE USING HIGH RESOLUTION SATELLITE STEREO IMAGERIES
Zhonghua Hong, Fengling Liu, Yun Zhang

A NOVEL APPROACH TO EXTRACT WATER BODY FROM ASAR DUAL-POLARIZED DATA
Jianwei Ma, Xiaoning Song, Xiaotao Li, Pei Leng, Fangcheng Zhou, Shuang Li

A STUDY ON RETRIEVAL ALGORITHM OF BLACK WATER AGGREGATION IN TAIHU LAKE BASED ON HJ-1 SATELLITE IMAGES
Zou Lei, Zhang Bing, Li Junsheng, Shen Qian, Zhang Fangfang, Wang Ganlin

APPLICATION OF AN IMPROVED CANNY ALGORITHMS OPERATOR IN RS DATA
Rui Liu, Jie Zhu

ASSESSMENT OF UNCERTAINTIES OF OCEAN COLOR PARAMETERS FOR THE OCEAN CARBON-BASED PRODUCTIVITY MODEL
Ma Sheng, Yang Xiaofeng, Tao Zui, Li Zwei, Zhou Xuan

AUTOMATED TECHNIQUES FOR QUANTIFICATION OF COASTLINE CHANGE RATES USING LANDSAT IMAGERY ALONG CAOFEIDIAN, CHINA
Di Dong, Zwei Li, Zhaoyin Liu, Yang Yu

DYNAMIC MONITORING OF WATER PETROLEUM SUBSTANCE USING HJ-1/CCD REMOTE SENSING DATA
Miaofen Huang, Xufeng Xing, Zulong Zhao, Zhanqiang Li

GEOSTROPHIC CURRENT ESTIMATION USING ALTIMETRIC CROSS-TRACK METHOD IN NORTHWEST PACIFIC
Yang Yu, Longfei Wang, Quan'An Zheng, Zwei Li

HYPERSPECTRAL IMAGE CLASSIFIER BASED ON BEACH SPECTRAL FEATURE
Zhang Liang, Guo Liangwu, Zhang Bing

INVERSION OF CDOM AND COD IN WATER USING HJ-1/CCD DATA
Miaofen Huang, Xufeng Xing, Zulong Zhao, Zhanqiang Li, Xinxing Wang

MONITORING COASTAL CHANGE AFTER THE TSUNAMI IN THAILAND
W Pantanahiran

OBJECT-ORIENTED SPATIAL-TEMPORAL ASSOCIATION RULES MINING ON OCEAN REMOTE SENSING IMAGERY
C J Xue, Q Dong, W X Ma

OCEAN WAVE EFFECTS ON THE RETRIEVED WIND FIELD FROM THE SCATTEROMETER
L Ren, J S Yang, G Zheng

RESEARCH ON THE FEATURES OF CHLOROPHYLL-A DERIVED FROM RAPIDEYE AND EOS/MODIS DATA IN CHAOHU LAKE
X Wen, Z Zhou, B Chen, Z Li, X Tang

RETRIEVAL OF SECCHI DISK DEPTH IN THE YELLOW SEA AND EAST CHINA SEA USING 8-DAY MODIS DATA
D F Yu, Q G Xing, M J Lou, P Shi

SAR MONITORING OF COASTLINE CHANGE IN SHANGHAI, CHINA
Xianwen Ding, Xiaofeng Li

SATELLITE OBSERVATIONS OF OIL SPILLS IN BOHAI SEA
Y L Wei, Z Y Tang, X F Li

SEA ICE CLASSIFICATION USING DUAL POLARIZATION SAR DATA
Liu Huiming, Guo Huadong, Zhang Lu

SPATIAL AND TEMPORAL DISTRIBUTION OF SEA SURFACE SALINITY IN COASTAL WATERS OF CHINA BASED ON AQUARIUS
Ying Wang, Hong Jiang, Xiuqian Zhang, Jiaxin Jin

SPATIAL-TEMPORAL VARIATION OF THE SURFACE CHLOROPHYLL ON SEASONAL TIMESCALE IN THE WESTERN PACIFIC DURING 1997–2010
X Y Hou, Q Dong, C J Xue

STUDIES OF UPPER LAYER CIRCULATIONS OF THE SOUTH CHINA SEA FROM SATELLITE ALTIMETER OBSERVATION
Chen Chuntao, Zhu Jianhua, Wang He, Huang Xiaqi
SUPERSTRUCTURE SCATTERING DISTRIBUTION BASED SHIP RECOGNITION IN TERRASAR-X IMAGERY ................................................................. 733
X W Xing, K F Ji, W T Chen, H X Zou, J X Sun

SWELL PARAMETERS RETRIEVAL USING ALOS/PALSAR DATA AND ITS APPLICATION ................................................................. 738
Y L Wei, H Kawamura, Z Y Tang

THE SEASONAL VARIATION OF THE PHYTOPLANKTON SIZE CLASS IN NORTHERN SOUTH CHINA SEA ................................................................. 744
G Wang, W Cao, G Wang

USING OPTICAL REMOTE SENSING MODEL TO ESTIMATE OIL SLEET THICKNESS BASED ON SATELLITE IMAGE ................................................................. 750
Y C Lu, W X Fu, Q J Tian, C G Lyu, W C Han

WATER EXTRACTION IN HIGH RESOLUTION REMOTE SENSING IMAGE BASED ON HIERARCHICAL SPECTRUM AND SHAPE FEATURES ................................................................. 756
Bangyu Li, Hui Zhang, Fanjiang Xu

WATER RESOURCES

AN IMPROVED EMPIRICAL METHOD FOR LARGE SPATIAL SCALE SURFACE SOIL HEAT FLUX ESTIMATIONS ................................................................. 762
Weiwei Zhu, Bingfang Wu, Shantong Lu, Nana Yan, Guoshuai Liu, Shufa Liu, Qiang Xing

ANALYSIS OF WETLAND CHANGE IN THE SONGHUA RIVER BASIN FROM 1995 TO 2008 ................................................................. 768
L H Yuan, W G Jiang, Z L Luo, X H He, Y H Liu

ASSIMILATION OF MICROWAVE BRIGHTNESS TEMPERATURES FOR SOIL MOISTURE ESTIMATION USING PARTICLE FILTER ................................................................. 775
H Y Bi, J W Ma, S X Qin, J Y Zeng

COMPARISON OF DIFFERENT METHODS FOR MONITORING GLACIER CHANGES OBSERVED BY LANDSAT IMAGES ................................................................................................. 781
Q X Man, H D Guo, G Liu, P L Dong

COMPARISON OF ET MODELS OVER DIFFERENT LAND COVER ................................................................................................. 786
Liang Sun, Shulin Liang, Zhongxin Chen

CONSTRUCTION AND EXPERIMENT OF HIERARCHICAL BAYESIAN NETWORK IN DATA ASSIMILATION ................................................................. 792
B R Gudu, S X Qin, J W Ma

DYNAMICS CHANGE OF HONGHU LAKE'S WATER SURFACE AREA AND ITS DRIVING FORCE ANALYSIS BASED ON REMOTE SENSING TECHNIQUE AND TOPMODEL MODEL ................................................................. 798
X Wen, D Hu, B Cao, S Shen, X Tang

ESTIMATING CONTINENTAL WATER STORAGE VARIATIONS IN CENTRAL ASIA AREA USING GRACE DATA ................................................................................................. 804
Mu Dapeng, Sun Zhongchang, Guo Jinjun

ESTIMATION THE DONGKEMADI GLACIER THICKNESS CHANGE BY ALOS/PALSAR ................................................................................................. 810
Jianmin Zhou, Zhen Li, Zhihua Tang, Bangsen Tian, Quan Chen, Lei Huang, Jiuli Liu

EVALUATION OF ALGORITHMS TO ESTIMATE DAILY EVAPOTRANSPIRATION FROM INSTANTANEOUS MEASUREMENTS UNDER ALL-SKY CONDITIONS ................................................................................................. 816
Zhaojie Ruan, Li Jia, Massimo Menenti

FAST GLACIER VOLUME CHANGE DETECTION BASED ON LEAST SQUARES 3D SURFACE MATCHING OF DEM ................................................................................................. 822
Sitao Fu, Zhen Li, Bangsen Tian, Liangbo Zhao, Zhihua Tang

GLACIAL FLUCTUATION IN THE SOURCE REGION OF THE YANGTZE RIVER ................................................................................................. 828
Gao Shengyi, Fan Qingsong, Cao Xi, Ma Li

GLACIER MASS CHANGE EVALUATION IN LAMBERT-AMERY AREA FROM 2002 TO 2012 USING ASTER STEREO IMAGES AND ICESAT GLAS LASER ALTIMETRY ................................................................................................. 835
Jun Liu, Xiaohua Tong, Shijie Liu, Shuang Liu, Lingyun Li, Zhonghua Hong, Yuaheng Xu

MASTER CONTROL DESIGN OF POLAR DETECTION ICE RADAR ................................................................................................. 840
Jun Li, Xiaojian Liu, Guangyou Fang

MONITORING GLACIER CHANGES OF RECENT 50 YEARS IN THE UPPER REACHES OF HEJI RIVER BASIN BASED ON REMOTELY-SENSED DATA ................................................................................................. 846
Bie Qiang, He Lei, Zhao Chuan-Yan
<table>
<thead>
<tr>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOTION OF THE LAMBERT GLACIER ESTIMATED BY USING DIFFERENTIAL</td>
<td>854</td>
</tr>
<tr>
<td>INTERFEROMETRIC SYNTHETIC APERTURE RADAR</td>
<td></td>
</tr>
<tr>
<td>Shuang Liu, Xiaohua Tong, Huan Xie, Xiangfeng Liu, Jun Liu</td>
<td></td>
</tr>
<tr>
<td>PRECISE TOPOGRAPHY ASSESSMENT OF LOP NUR LAKE BASIN USING GLAS ALTIMETER</td>
<td>858</td>
</tr>
<tr>
<td>Longfei Wang, Huaze Gong, Yun Shao</td>
<td></td>
</tr>
<tr>
<td>REGIONAL EVAPOTRANSPIRATION ESTIMATION BASED ON A TWO-LAYER REMOTE-</td>
<td>864</td>
</tr>
<tr>
<td>SENSING SCHEME IN SHAHE RIVER BASIN</td>
<td></td>
</tr>
<tr>
<td>Jian Yin, Huixiao Wang</td>
<td></td>
</tr>
<tr>
<td>RESEARCH ON THE TEMPORAL-SPATIAL CHANGES OF NEAR-SURFACE SOIL FREEZE/THAW CYCLES IN CHINA BASED ON RADIOMETER</td>
<td>870</td>
</tr>
<tr>
<td>Lin Guoqing, Guo Huadong, Li Xinwu, Zhang Lu</td>
<td></td>
</tr>
<tr>
<td>STUDY ON THE RELATIONSHIP BETWEEN SOIL MOISTURE AND ITS DIELECTRIC</td>
<td>875</td>
</tr>
<tr>
<td>CONSTANT OBTAINED BY SPACE-BORNE MICROWAVE RADIOMETERS AND SCATTEROMETERS</td>
<td></td>
</tr>
<tr>
<td>Chen Quan, Liu Jiuli, Tang Zhihua, Zeng Jiangyuan, Li Yan</td>
<td></td>
</tr>
<tr>
<td>STUDY ON THE RELATIONSHIP BETWEEN THE LAKE AREA VARIATIONS OF QINGHAI-TIBETAN PLATEAU AND THE CORRESPONDING CLIMATE CHANGE IN THEIR BASINS</td>
<td>881</td>
</tr>
<tr>
<td>Shen Guozhuang, Liao Jingqian, Guo Huadong, Li Yinghui</td>
<td></td>
</tr>
<tr>
<td>STUDY ON VARIABILITY OF WHEAT EVAPOTRANSPIRATION IN IRRIGATION</td>
<td>887</td>
</tr>
<tr>
<td>FARMLAND AREAS OF NORTHWEST CHINA</td>
<td></td>
</tr>
<tr>
<td>C M Wang, Q Y Meng, L J Zheng, M Liu</td>
<td></td>
</tr>
<tr>
<td>THE IMPROVED ET CALCULATION FOR SEMIARID REGION BASED ON AN INNOVATIVE AERODYNAMIC ROUGHNESS INVERSION METHOD USING MULTI-SOURCE REMOTE SENSING DATA</td>
<td>894</td>
</tr>
<tr>
<td>Qiang Xing, Bingfang Wu, Weiwei Zhu</td>
<td></td>
</tr>
<tr>
<td>THEORY AND APPLICATION OF MEASURING MESOSCALE SOIL MOISTURE BY COSMIC-RAY FAST NEUTRON PROBE</td>
<td>900</td>
</tr>
<tr>
<td>Q Jiao, Z Zhu, F Du</td>
<td></td>
</tr>
<tr>
<td>VALIDATION AND ALGORITHMS COMPARATIVE STUDY FOR MICROWAVE REMOTE SENSING OF SNOW DEPTH OVER CHINA</td>
<td>908</td>
</tr>
<tr>
<td>C J Bin, Y B Qiu, L J Shi</td>
<td></td>
</tr>
<tr>
<td>WATER CYCLE AND CLIMATE SIGNALS IN AFRICA OBSERVED BY SATELLITE GRAVIMETRY</td>
<td>914</td>
</tr>
<tr>
<td>Ayman A Hassan, Shuanggen Jin</td>
<td></td>
</tr>
<tr>
<td>URBAN ENVIRONMENTS</td>
<td></td>
</tr>
<tr>
<td>A FAST APPROACH TO GENERATE LARGE-SCALE TOPOGRAPHIC MAPS BASED ON NEW CHINESE VEHICLE-BORNE LIDAR SYSTEM</td>
<td>920</td>
</tr>
<tr>
<td>Han Youmei, Yang Bogang</td>
<td></td>
</tr>
<tr>
<td>A NEW METHOD FOR RETRIEVING LAND SURFACE TEMPERATURE FROM HJ-1B DATA AND THE TEMPORAL INFLUENCES</td>
<td>926</td>
</tr>
<tr>
<td>F Chen, X F Zhao</td>
<td></td>
</tr>
<tr>
<td>AUTOMATED INDIVIDUAL TREE CROWN DELINEATION FROM LIDAR DATA USING MORPHOLOGICAL TECHNIQUES</td>
<td>932</td>
</tr>
<tr>
<td>L Jing, B Hu, H Li, J Li, T Noland</td>
<td></td>
</tr>
<tr>
<td>ESTIMATION TERRESTRIAL NET PRIMARY PRODUCTIVITY BASED ON CASA MODEL: A CASE STUDY IN MINNAN URBAN AGGLOMERATION, CHINA</td>
<td>938</td>
</tr>
<tr>
<td>L Z Hua, H Liu, X Z Zhang, Y Zheng, W Man, K Yin</td>
<td></td>
</tr>
<tr>
<td>LAND SURFACE TEMPERATURE RETRIEVAL FROM MODIS AND VIRR DATA IN NORTHWEST CHINA</td>
<td>944</td>
</tr>
<tr>
<td>L J Wang, H C Zhao, P C Ren, B Qiang</td>
<td></td>
</tr>
<tr>
<td>LANDSCAPE CLASSIFICATIONS FOR LANDSCAPE METRICS-BASED ASSESSMENT OF URBAN HEAT ISLAND: A COMPARATIVE STUDY</td>
<td>951</td>
</tr>
<tr>
<td>X F Zhao, L Deng, H N Wang, L Z Hua, F Chen</td>
<td></td>
</tr>
<tr>
<td>REGIONAL URBAN AREA EXTRACTION USING DMSP-OLS DATA AND MODIS DATA</td>
<td>957</td>
</tr>
<tr>
<td>X Y Zhang, C Cai, P J Li</td>
<td></td>
</tr>
</tbody>
</table>
SPATIO-TEMPORAL PATTERN ANALYSIS OF URBAN THERMAL ENVIRONMENT OF DIFFERENT TYPES OF CITIES .......................................................... 963
Yang Liu, Huanjun Liu, Yuanzhi Zhang, Xinle Zhang, Hongting Zang, Wen Hu

STUDY OF THERMAL ENVIRONMENT IN JINGJINTANG URBAN AGGLOMERATION BASED ON WRF MODEL AND LANDSAT DATA ........................................ 969
Q N Huang, Z Q Cao, H D Guo, X H Xi, X W Li

SYNERGISTIC USING MEDIUM-RESOLUTION AND HIGH-RESOLUTION REMOTE SENSING IMAGERY TO EXTRACT IMPERVIOUS SURFACE FOR DIANCI BASIN .................................................. 975
Liang Hong, Kun Yang, Ming Deng, Cun Liu

THE ALGORITHM TO GENERATE COLOR POINT-CLOUD WITH THE REGISTRATION BETWEEN PANORAMIC IMAGE AND LASER POINT-CLOUD ........................................ 981
Fanyang Zeng, Ruofei Zhong

THE MITIGATION EFFECT OF CONFIGURATION AND CONTEXT OPTIMIZATION OF URBAN HOLDINGS ON HEAT ISLAND .................................................................................. 988
Y P Liu, D Y Yu, B Xu

URBAN HEAT ISLAND EFFECTS DERIVED FROM DENSE LANDSAT THERMAL OBSERVATIONS IN NANJING, CHINA .......................................................... 992
L Du, T Zhou, M S Li, D Y Gong

URBAN PERCENT IMPERVIOUS SURFACE AND ITS RELATIONSHIP WITH LAND SURFACE TEMPERATURE IN YANTAI CITY, CHINA .......................................................... 998
Xinyang Yu, Changhe Lu

URBAN THERMAL LANDSCAPE CHARACTERIZATION AND ANALYSIS ................................................................................................................................. 1005
Y Xue, T Fung, J Tsou

REMOTE SENSING OF NATURAL AND CULTURAL HERITAGE

AN INTEGRATED 3S AND HISTORICAL MATERIALS ANALYSIS OF THE KERIYA PALEORIVER, NW CHINA ................................................................................................................................. 1012
Lei Luo, Xinyuan Wang, Heng Cai

FINE DEFORMATION MONITORING OF ANCIENT BUILDING BASED ON TERRESTRIAL LASER SCANNING TECHNOLOGIES .................................................................................................................. 1018
Zhou Wei, Guo Huadong, Li Qi, Hong Tianhua

MONITORING URBAN TRANSFORMATION IN THE OLD FOREIGN CONcessIONS OF SHANGHAI FROM 1987 TO 2012 .......................................................................................................................... 1024
A Lefebvre, T Corpetti, N Courty

RESEARCH ON FINE MANAGEMENT AND VISUALIZATION OF ANCIENT ARCHITECTURES BASED ON INTEGRATION OF 2D AND 3D GIS TECHNOLOGY .......................................................... 1030
Yan Jun, Wang Shaohua, Li Jiayuan, Hu Qingwu

THE CONSTRUCTION OF THE SPATIO-TEMPORAL DATABASE OF THE ANCIENT SILK ROAD WITHIN XINJIANG PROVINCE DURING THE HAN AND TANG DYNASTIES .................................................................................................................. 1036
Jiantao Bi, Guilin Luo, Xingxing Wang, Zuoja Zhu

WATER ENVIRONMENT EVOLUTION ALONG THE CHINA GRAND CANAL ................................................................................................................................. 1042
F Mao, Y X Wu, B F Yang, X J Li

ENERGY AND GEOLOGICAL RESOURCES

A BAYESIAN APPROACH FOR SOLAR RESOURCE POTENTIAL ASSESSMENT USING SATELLITE IMAGES ................................................................................................................................. 1049
L Linguet, J Atif

A METHOD FOR GEOLOGICAL HAZARD EXTRACTION USING HIGH-RESOLUTION REMOTE SENSING ................................................................................................................................. 1055
Q J Wang, M X Li, Y Chen, J T Bi, Q Z Lin

ALTERATION ZONE MAPPING FOR DETECTING POTENTIAL MINERALIZED AREAS IN KALADAWAN OF NORTH ALTYN TAGH USING ASTER DATA .................................................................................................................. 1061
Zhou Yong-Gui, Chen Zheng-Le, Chen Xing-Tong, Chen Bai-Lin

HYDROTHERMAL ALTERATION MAPPING USING ASTER DATA IN BAOGUTU PORPHYRY DEPOSIT, CHINA ................................................................................................................................. 1067
Q Li, B Zhang, L Lu, Q Lin
INFORMATION EXTRACTION AND INTERPRETATION ANALYSIS OF MINERAL POTENTIAL TARGETS BASED ON ETM+ DATA AND GIS TECHNOLOGY: A CASE STUDY OF COPPER AND GOLD MINERALIZATION IN BURMA .......................................................................................................................... 1073
Du Wenhui, Wang Gongwen, Chen Yongqing, Guo Nana, Hao Yinglong, Zhao Pengfei

REMOTE SENSING AND GIS-BASED PREDICTION AND ASSESSMENT OF COPPER-GOLD RESOURCES IN THAILAND .......................................................................................................................... 1079
Shasha Yang, Gongwen Wang, Wenhui Du, Luxiong Huang

AIRBORNE REMOTE SENSING

1:500 SCALE AERIAL TRIANGULATION TEST WITH UNMANNED AIRSHIP IN HUBEI PROVINCE .......................................................................................................................... 1084
Xie Feifei, Lin Zongqian, Gui Dezhu

A COMPREHENSIVE FRAMEWORK OF BUILDING MODEL RECONSTRUCTION FROM AIRBORNE LIDAR DATA .............................................................................................................. 1090
Y Xiao, C Wang, X H Xi, W M Zhang

AN IMAGE SUPER-RESOLUTION METHOD CONSIDERING EDGE CHARACTER ................................................................. 1096
Wang Yuan Yuan, Zhang Cheng Ming, Liang Yong

A MODIFIED NONLINEAR CHIRP SCALING ALGORITHM FOR AIR-BORNE ICE RADAR ......................................................... 1102
Zhao Bo, Lang Shihan, Liu Xiaojun, Fang Guangyou

A NOVEL COMPACT WIDEBAND TSA ARRAY FOR NEAR-SURFACE ICE SHEET PENETRATING RADAR APPLICATIONS ........................................................................................................... 1108
Feng Zhang, Xiaojun Liu, Guangyou Fang

ACCURATE AND EMERGENT APPLICATIONS FOR HIGH PRECISION LIGHT SMALL AERIAL REMOTE SENSING SYSTEM.................................................................................................................. 1113
Liu Pei, Li Yingcheng, Xue Yanli, Hu Qingshu, Sun Xiaofeng

AERIAL IMAGE SERIES QUALITY ASSESSMENT .................................................................................................................. 1119
Hui Zhang, Bangyu Li, Jinfang Zhang, Fanjiang Xu

AERIAL VISIBLE-THermal INfrared HYperspectral FEATURE EXTRACTION TECHNOLOGY AND ITS APPLICATION TO OBJECT IDENTIFICATION ................................................................. 1125

AIRBORNE LIDAR BORSIGHT ERROR CALIBRATION BASED ON SURFACE COINCIDE .......................................................................................................................... 1130
Fangyuan Yuan, Guoqiang Li, Zhengli Zuo, Dong Li, Zengying Qi, Wen Qiu, Junxiang Tan

AIRBORNE SAR RADIOMETRIC CALIBRATION USING POINT TARGETS ....................................................................................... 1136
Feng Zongmin, Huang Lei, Tang Zhihua, Liu Jiuli, Zhao Lianbo

AN IMPROVED SIFT ALGORITHM FOR UNMANNED AERIAL VEHICLE IMAGERY ........................................................................ 1142
J M Li, D M Yan, G Wang, Z Zhang

CALIBRATION AND VALIDATION OF AIRBORNE INSAR GEOMETRIC MODEL ................................................................................. 1148
Han Chunnian, Guo Huadong, Yue Xiaojun, Dou Changyong, Song Mingming, Zhang Yanbing

DEVELOPMENT OF AIRBORNE REMOTE SENSING DATA ASSIMILATION SYSTEM ........................................................................ 1153
B R Gudu, H Y Bi, H Y Wang, S X Qin, J W Ma

DISTORTION CORRECTION ALGORITHM FOR UAV REMOTE SENSING IMAGE BASED ON CUDA .......................................................................................................................... 1158
Zhang Wenhao, Li Yingchong, Li Delong, Feng Changsheng, Liu Jin

EDGE DETECTION FROM HIGH RESOLUTION REMOTE SENSING IMAGES USING TWO-DIMENSIONAL LOG GABOR FILTER IN FREQUENCY DOMAIN ............................................................................. 1164
K Wang, T Yu, Q Y Meng, G K Wang, S P Li, S H Liu

FLIGHT ROUTE DESIGNING AND MISSION PLANNING OF POWER LINE INSPECTING SYSTEM BASED ON MULTI-SENSOR UAV ........................................................................................................ 1170
Xie Xiaowei, Liu Zhijian, Zuo Zhiqian

GEOMETRIC CORRECTION OF PHI HYPER SPECTRAL IMAGE WITHOUT GROUND CONTROL POINTS .......................................................................................................................... 1176
Kaufeng Luan, Xiaohua Tong, Yanhua Ma, Rong Hu, Weming Xu, Xiangfeng Liu

IN-FLIGHT RADIO METRIC CALIBRATION OF DIGITAL PHOTOGRAMMETRIC CAMERA USING MULTI-GRAYSCALE ARTIFICIAL TARGETS ............................................................................. 1181
F J Zheng, T Yu, H L Gao, H Zhao, J Liu, G T Yuan

JELLYFISH MONITORING ON COASTLINES USING REMOTE PILOTED AIRCRAFT ........................................................................ 1186
C Barrado, J A Fuentes, E Salamí, P Royo, A D Obarrega, J López, V L Fuentes, J M Gili, E Pastor

LABORATORY GEOMETRIC CALIBRATION OF AREAL DIGITAL AERIAL CAMERA ................................................................................. 1193
F Yuan, W J Qi, A P Fang
MULTI-GRANULARITY SYNTHESIS SEGMENTATION FOR HIGH SPATIAL RESOLUTION REMOTE SENSING IMAGES ................................................................. 1200
  Lina Yi, Pengfei Liu, Xiaojun Qiao, Xiaoning Zhang, Yuan Guo, Boyan Feng
PLAYBACK SYSTEM DESIGNED FOR X-BAND SAR ................................................................. 1206
  Liu Yuquan, Dou Changyong
RESEARCH ON BLOCK ADJUSTMENT OF AIRBORNE INSAR IMAGES ................................................................. 1211
  Yue Xiujian, Han Chunming, Dou Changyong, Zhao Yinghui
SEMI-PHYSICAL SIMULATION OF THE AIRBORNE INSAR BASED ON RIGOROUS
GEOMETRIC MODEL AND REAL NAVIGATION DATA ................................................................. 1217
  Dou Changyong, Guo Huadong, Han Chunming, Liu Yuquan, Yue Xiujian, Zhao Yinghui
THE ORTHORECTIFIED TECHNOLOGY FOR UAV AERIAL REMOTE SENSING IMAGE
BASED ON THE PROGRAMMABLE GPU ................................................................. 1223
  Liu Jin, Li Ying-Cheng, Li De-Long, Teng Chang-Sheng, Zhang Wen-Hao
UCXP CAMERA IMAGING PRINCIPLE AND KEY TECHNOLOGIES OF DATA POST-
PROCESSING ................................................................. 1229
  Fangyan Yuan, Guoqing Li, Zhengli Zuo, Jianmin Liu, Liang Wu, Xiaoping Yu, Haitao Zhao

ADVANCES IN DATA PROCESSING AND INFORMATION EXTRACTION TECHNIQUES

A 'DRIFT' ALGORITHM FOR INTEGRATING VECTOR POLYLINE AND DEM BASED ON
THE SPHERICAL DG ................................................................. 1235
  Jiaoxiao Wang, Lei Wang, Wenmin Cuo, Xuesheng Zhao
A BAND SELECTION METHOD BASED ON SYNTHESIZED INFORMATION CONTENT FOR
HYPER-SPECTRAL PIXEL UN-MIXING ................................................................. 1241
  Yuan Bo, Wang Ning, Li Chuanrong
A METHOD OF PARTICLE SWARM OPTIMIZED SVM HYPER-SPECTRAL REMOTE
SENSING IMAGE CLASSIFICATION ................................................................. 1247
  Q J Liu, L H Jing, L M Wang, Q Z Lin
A METHOD TO IMPROVE MINERAL IDENTIFICATION ACCURACY BASED ON
HYPERSONAL DATA ................................................................. 1252
  Y J Wang, Q Z Lin, Q J Wang, Y Chen
A MULTI-STAGE METHOD TO EXTRACT ROAD FROM HIGH RESOLUTION SATELLITE
IMAGE ................................................................. 1258
  Huang Zhijian, Jinfang Zhang, Fanjiang Xu
A NOVEL AND EFFECTIVE MULTIVARIATE METHOD FOR COMPOSITIONAL ANALYSIS
USING LASER INDUCED BREAKDOWN SPECTROSCOPY ................................................................. 1264
  W Wang, B Ayhan, C Kwan, H Qi, S Vance
A NOVEL METHOD FOR PROCESSING MULTIVARIATE DATA OF MARINE REMOTE
SENSING ................................................................. 1270
  Chenlu Ying, Qing Dong, Cunjin Xue, Xiaoyang Wen
A VEGETATION HEIGHT CLASSIFICATION APPROACH BASED ON TEXTURE ANALYSIS
OF A SINGLE VHII IMAGE ................................................................. 1276
  Z I Petrou, I Manakos, T Stathaki, C Tarantino, M Adamo, P Blonda
ACCURACY ANALYSIS OF INDIRECT GEOREFERENCING ABOUT TH-1 SATELLITE IN
WEINAN TEST AREA ................................................................. 1282
  Yang Yunlan, Hu Haiyan
AN OBJECT-ORIENTED CLASSIFICATION METHOD OF HIGH RESOLUTION IMAGERY
BASED ON IMPROVED ADATREE ................................................................. 1288
  Zhang Xiaohua, Zhai Liang, Zhang Jixian, Sang Huiyong
ASSESSMENT OF LAND SURFACE COMPLEXITY IN RELATION TO INFORMATION
CAPACITY AND THE FRACATIONAL DIMENSION IN DIFFERENT LANDFORM REGIONS USING
Landsat Data ................................................................. 1294
  Wang Xu Hong, Qin Huijie, Zhang Zhe, Li Fei
AUTOMATIC EPIPOLAR IMAGE GENERATION WITH ZY-3 TLS IMAGERY ................................................................. 1300
  Duan Yansong
CASE STUDY OF ATMOSPHERIC CORRECTION ON CCD DATA OF HJ-1 SATELLITE
BASED ON 6S MODEL ................................................................. 1307
  Xiaojuan Xue, Qingyan Meng, Yong Xie, Zhangli Sun, Zhang Wang, Hang Zhao
CHARACTERISTICS OF THE GRAVEL SIZE AND POTASSIUM IN THE EJIN ALLUVIAL FAN
FROM REMOTE SENSING IMAGES AND STRATIGRAPHIC SECTION ................................................................. 1313
  Lu Zhang, Huadong Guo, Qinjun Wang
BUILDINGS AND TERRAIN OF URBAN AREA POINT CLOUD SEGMENTATION BASED ON PCL
Ying Liu, Ruofei Zhong .......................................................... 1451

DEM EXTRACTION AND ITS ACCURACY ANALYSIS WITH GROUND-BASED SAR INTERFEROMETRY
J Dong, J P Yue, L H Li .......................................................... 1457

EXPLOITING POLARIZATION USING MULTI-FREQUENCY SAR DATA AND MULTI-DIMENSIONAL TIME-FREQUENCY TECHNIQUES
Cunbin Hu, Wei Wang, Lingjun Zhao, Guangao Kuang .............. 1463

FEATURE EXTRACTION FOR SAR TARGET RECOGNITION BASED ON SUPERVISED MANIFOLD LEARNING
C Du, S Zhou, J Sun, J Zhao .................................................. 1469

HIGHWAY THREE-DIMENSIONAL MODELING BASED ON VEHICLE-BORNE LASER DATA
Sun Weili, Zhong Ruofei, Wei Jiangxia, Zeng Fanyang .............. 1475

LAYOVER AND SHADOW DETECTION BASED ON DISTRIBUTED SPACEBORNE SINGLE-BASELINE INSAR
Zou Huaxin, Cai Bin, Fan Changzhou, Ren Jun .......................... 1481

RESEARCH ON ATMOSPHERIC DISTURBANCE CORRECTION METHOD OF GROUND-BASED RADAR INTERFEROMETRY
X Zhou, Y M Xu, P Wang, C Xing ............................................. 1487

REVIEW OF ROAD EXTRACTION METHODS FROM SAR IMAGE
N Sun, J X Zhang, G M Huang, Z Zhao, L J Lu .......................... 1493

SAR IMAGE SEGMENTATION BASED ON THE ADVANCED LEVEL SET
S Y Luo, L Tong, Y Chen, M Q Jia ............................................ 1499

SAR IMAGERY SIMULATION OF SHIP BASED ON ELECTROMAGNETIC CALCULATIONS AND SEA CLUTTER MODELLING FOR CLASSIFICATION APPLICATIONS
K F Ji, Z Zhao, X W Xing, H X Zhou, S L Zhou .......................... 1504

STATISTICAL MODELING OF A JOINT METRIC OF SAR INTERFEROGRAM'S MAGNITUDE AND PHASE USING FISHER DISTRIBUTION FOR TEXTURE
Xianxiang Qin, Shilin Zhou, Huanxin Zou, Gui Gao .................... 1510

STUDY OF THE MICROWAVE EMISIVITY CHARACTERISTICS OVER GOBI DESERT
Qiu Yubao, Shi Lijuan, Wu Wenbo ........................................ 1516

THE CONSTRUCTION AND APPLICATION OF THE AMSR-E GLOBAL MICROWAVE EMISIVITY DATABASE
Shi Lijuan, Qiu Yubao, Niu Jingjing, Wu Wenbo ....................... 1523

TOPOGRAPHIC CORRECTION OF GPR PROFILES BASED ON LASER DATA
Di Zhang, Ruofei Zhong, Jia Cun Li, Fanyang Zeng ................... 1529

USE OF AIRBORNE LIDAR TO ESTIMATE FOREST STAND CHARACTERISTICS
Qi Li, Wei Zhou, Chang Li .................................................... 1535

REMOTE SENSING DATA SERVICE AND SPACE DATABASE INFRASTRUCTURE

A MODELLING FRAMEWORK FOR ESTIMATING ROAD SEGMENT BASED ON-BOARD VEHICLE EMISSIONS
Yu Liu-Jun, Liu Ya-Lan, Peng Zhong-Ren, Liu Meng Meng, Ren Yu-Huan .......................................................... 1541

A POSITIONING SYSTEM FOR FOREST DISEASES AND PESTS BASED ON GIS AND PTZ CAMERA
Z B Wang, L L Wang, F F Zhao, C B Wang ............................... 1547

AN OPEN SOURCE SOFTWARE AND WEB-GIS BASED PLATFORM FOR AIRBORNE SAR REMOTE SENSING DATA MANAGEMENT, DISTRIBUTION AND SHARING
Dou Changyong, Gou Huadong, Han Chunming, Liu Ming .......... 1553

APPLICATION OF SHORT-WAVE INFRARED (SWIR) SPECTROSCOPY IN QUANTITATIVE ESTIMATION OF CLAY MINERAL CONTENTS
Jinfeng You, Lixin Xing, Liheng Liang, Jun Pan, Tao Meng ......... 1558

DESIGN & IMPLEMENTATION OF DISTRIBUTED SPATIAL COMPUTING NODE BASED ON WPS
Liping Liu, Guoqing Li, Jibo Xie ............................................ 1564

EFFECTIVE ASSOCIATION OF SAR AND AIS DATA USING NON-RIGID POINT PATTERN MATCHING
Z Zhao, K F Ji, X W Xing, H X Zhou ...................................... 1572
GEOSPATIAL DATA INFRASTRUCTURE: THE DEVELOPMENT OF METADATA FOR GEO-INFORMATION IN CHINA ................................................................. 1578
Baiquan Xu, Shiqiang Yan, Qianju Wang, Jian Lian, Xiaoping Wu, Keyong Ding

INDOOR AIR QUALITY ANALYSIS BASED ON HADOOP .......................................................................................... 1585
Wang Tao, Sun Yunhua, Tian Song, Yu Liang, Cui Weihong

PANORAMIC IMAGES MAPPING TOOLS INTEGRATED WITHIN THE ESRI ARCGIS SOFTWARE ................................................................. 1591
Jiao Guo, Ruofei Zhong, Fanyang Zeng

POPULARIZATION OF REMOTE SENSING EDUCATION AND GENERAL COURSE CONSTRUCTION IN UNDERGRADUATE EDUCATION ............................................................................. 1596
Jing Ai Wang, Zhongzuo Sheng, Han Yu

RESEARCH ON THE TESTING METHODS FOR IBIS-S SYSTEM ................................................................. 1601
C Xing, Z Q Yu, X Zhou, P Wang

SEASONAL SLOPE SURFACE DEFORMATION MEASURED WITH TLS ............................................................................. 1607
L Fan, J Smethurst, W Powrie, A Sellaiya

SPATIAL DISTRIBUTION AND ECOLOGICAL ENVIRONMENT ANALYSIS OF GREAT GERBIL IN XINJIANG PLAGUE EPIDEMIC FOCI BASED ON REMOTE SENSING ................................................................. 1613
Mengxu Gao, Qun Li, Chunxiang Cao, Juanle Wang

THE DETERMINATIONS OF REMOTE SENSING SATELLITE DATA DELIVERY SERVICE QUALITY: A POSITIVISTIC CASE STUDY IN CHINESE CONTEXT ............................................................................. 1619
Jiahua Jin, Xiangbin Yan, Qiaoqiao Tan, Yijun Li

THE ESTABLISHMENT OF THE SAR IMAGES DATABASE SYSTEM BASED ON ORACLE AND ARCSDE ............................................................................. 1625
Jijin Zhou, Zhen Li, Quan Chen, Bangsen Tian

USING SUPPORT VECTOR REGRESSION TO PREDICT PM10 AND PM2.5 ............................................................................. 1631
Hou Weizhen, Li Zhengqiang, Zhang Yuhuan, Xu Hua, Zhang Ying, Li Kaitao, Li Donghui, Wei Peng, Ma Yan

NATIONAL, REGIONAL, INTERNATIONAL PROGRAMS AND APPLICATIONS

CONTINUAL OBSERVATION ON CROP LEAF AREA INDEX USING WIRELESS SENSORS NETWORK ............................................................................. 1637
Sihong Jiao

CORRECTION OF SUB-Pixel TOPOGRAPHICAL EFFECTS ON LAND SURFACE ALBEDO RETRIEVED FROM GEOSTATIONARY SATELLITE (FENGYUN-2D) OBSERVATIONS ............................................................................. 1643
L Roupioz, L Jia, F Nerry, M Menenti

DESIGN OF THE RESOURCES AND ENVIRONMENT MONITORING WEBSITE IN KASHGAR ............................................................................. 1649
Z Huang, Q Z Lin, Q J Wang

EVALUATION OF A LINEAR MIXING MODEL TO RETRIEVE SOIL AND VEGETATION TEMPERATURES OF LAND TARGETS ............................................................................. 1655
Jinxin Yang, Li Jia, Yaokui Cui, Jie Zhou, Massimo Menenti

INFORMATION THEORETICAL BOUNDS FOR COMPRESSED SENSING IN SAR IMAGING ............................................................................. 1661
Zhang Jingxiong, Yang Ke, Guo Jianzhong

LITHOLOGICAL DISCRIMINATION BASED ON THE INVERSION OF ROUGHNESS IN HAMI AREA, XINJIANG ............................................................................. 1669
Ni Zhuoya, Huo Hongyuan, Gan Fuping, Wang Yongjiang, Li Xiaowen, Liu Zhigang

MAPPING WIND EROSION HAZARD IN AUSTRALIA USING MODIS-DERIVED GROUND COVER, SOIL MOISTURE AND CLIMATE DATA ............................................................................. 1675
X Yang, J Leys

OBJECT-BASED CONDITIONAL RANDOM FIELDS FOR ROAD EXTRACTION FROM REMOTE SENSING IMAGE ............................................................................. 1681
Zhijian Huang, Fanning Xu, Lei Li, Hongshan Nie

PRELIMINARY VALIDATION OF TOTAL WATER VAPOR COLUMN PRODUCTION OF SCANNING MICROWAVE RADIOMETER ONBOARD HY-2 SATELLITE ............................................................................. 1688
Xiaoqi Huang, Jianhua Zhu, Yili Zhao, He Wang, Chuntao Chen

THE ANALYSIS OF MOONBORNE CROSS TRACK SYNTHETIC APERTURE RADAR INTERFEROMETRY FOR GLOBAL ENVIRONMENT CHANGE MONITORING ............................................................................. 1694
Ding Yixing, Guo Huadong, Liu Guang, Zhang Daozhang

VALIDATION OF SIGNIFICANT WAVE HEIGHT PRODUCT FROM ENVISAT ASAR USING TRIPLE COLLOCATION ............................................................................. 1699
H Wang, C Y Shi, J H Zhu, X Q Huang, C T Chen

Author Index