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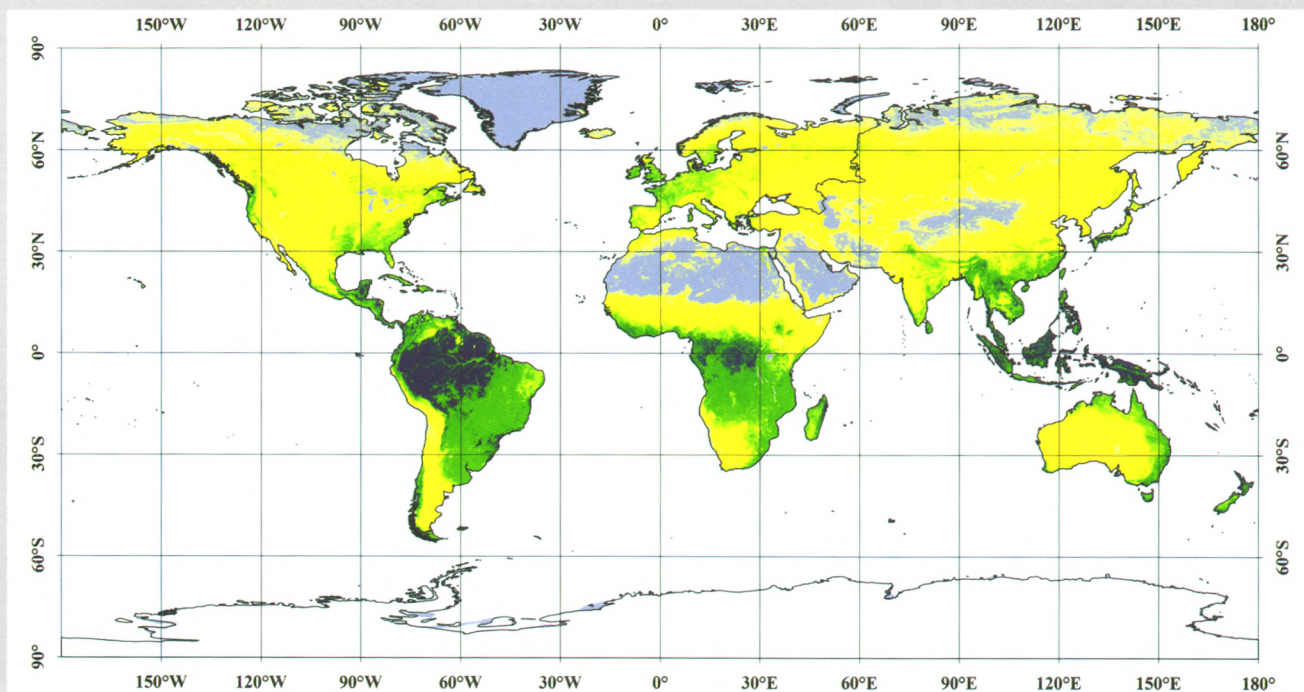


图1 2012年12、1和2月GLASS LAI均值的分布图

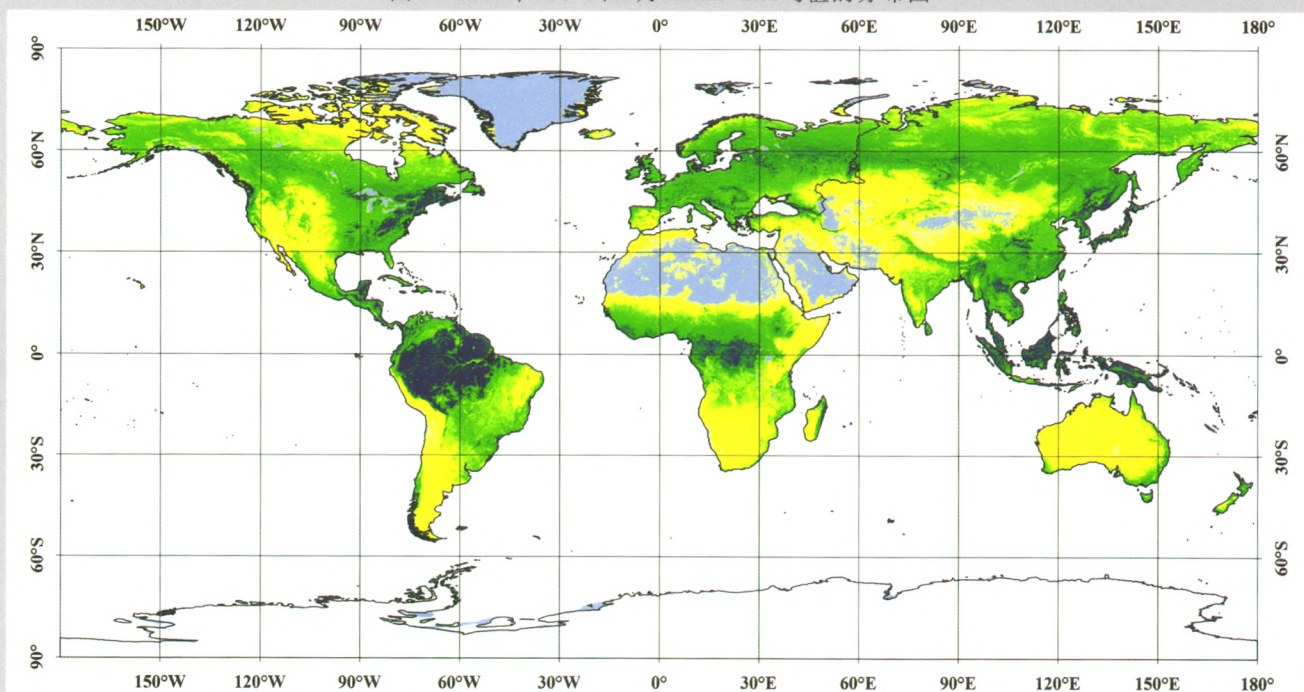
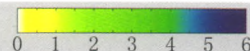


图2 2012年6、7和8月GLASS LAI均值的分布图



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Yaogan Xuebao

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目 次

陆表遥感数据产品的分析研究专栏

- 融合 Landsat ETM+和 MODIS 数据估算高时空分辨率地表短波反照率 张开, 周红敏, 王锦地, 薛华柱 (507)
- 锡林浩特草原区域 MODIS LAI 产品真实性检验与误差分析 孙晨曦, 刘良云, 关琳琳, 焦全军, 彭代亮 (527)
- 基于小波域的 InSAR 干涉图噪声识别与估计 蔡国林, 刘国祥, 张奥丽, 孙美玲 (542)
- 利用 Landsat TM 数据和地面观测数据验证 GLASS 反照率产品 王立钊, 郑学昌, 孙林, 刘强, 刘素红 (552)
- 3 种反演算法的地表反照率遥感产品对比分析 齐文栋, 刘强, 洪友堂 (566)
- GLASS 叶面积指数产品验证 向阳, 肖志强, 梁顺林, 王锦地, 宋金玲 (585)

综述

- 遥感影像相对辐射校正方法及适用性研究 段依妮, 张立福, 晏磊, 吴太夏, 刘跃生, 童庆禧 (607)

技术方法

- 基于 NSCT 和 SURF 的遥感图像匹配 吴一全, 沈毅, 陶飞翔 (624)
- 改进的航摄影像 Mask 匀光算法 袁修孝, 韩宇韬, 方毅 (636)
- 利用最冷目标地物替代法计算 Jason-2 微波辐射计的年度漂移 周武, 林明森, 杨劲松, 郑罡 (649)
- 利用时空信息的单波段地表温度遥感反演 陈峰, 赵小锋, 全元, 柳林 (665)
- 光学与微波数据协同反演农田区土壤水分 马红章, 张临晶, 孙林, 柳钦火 (679)

遥感应用

- 北京一号数据检测渤海海洋锋 平博, 苏奋振, 杜云艳, 苏伟光 (691)
- 利用 MODIS BRDF 估算中国东北森林背景反射率——以大兴安岭加格达奇地区为例 顾春明, 刘振波, 葛云健 (705)
- 北京市热环境时空分异与区划 乔治, 田光进 (725)

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(Vol.18 No.3 May, 2014)

CONTENTS

Analysis research of the land remote sensing product

- Estimation and validation of high spatio-temporal resolution albedo by fusing Landsat ETM+ and MODIS data ZHANG Kai, ZHOU Hongmin, WANG Jindi, XUE Huazhu (497)
- Validation and error analysis of the MODIS LAI product in Xilinhot grassland SUN Chenxi, LIU Liangyun, GUAN Linlin, JIAO Quanjun, PENG Dailiang (518)
- Identification and estimation of InSAR interferogram noise based on wavelet transform CAI Guolin, LIU Guoxiang, ZHANG Aoli, SUN Meiling (537)
- Validation of GLASS albedo product through Landsat TM data and ground measurements WANG Lizhao, ZHENG Xuechang, SUN Lin, LIU Qiang, LIU Suhong (547)
- Comparison analysis based on different inverse algorithms of surface albedo products QI Wendong, LIU Qiang, HONG Youtang (559)
- Validation of Global LAnd Surface Satellite (GLASS) leaf area index product XIANG Yang, XIAO Zhiqiang, LIANG Shunlin, WANG Jindi, SONG Jinling (573)

Fundamental Research

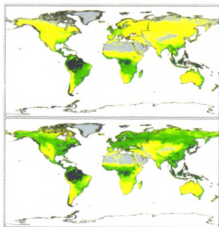
- Relative radiometric correction methods for remote sensing images and their applicability analysis DUAN Yini, ZHANG Lifu, YAN Lei, WU Taixia, LIU Yuesheng, TONG Qingxi (597)

Technology and Methodology

- Remote sensing image matching based on non-subsampled contourlet transform and speed up robust features WU Yiquan, SHEN Yi, TAO Feixiang (618)
- Improved Mask dodging algorithm for aerial imagery YUAN Xiuxiao, HAN Yutao, FANG Yi (630)
- Using the coldest vicarious calibration method for calculating the annual drift of the Jason-2 microwave radiometer ZHOU Wu, LIN Mingsen, YANG Jingsong, ZHENG Gang (642)
- Single-channel method based on temporal and spatial information for retrieving land surface temperature from remote sensing data CHEN Feng, ZHAO Xiaofeng, QUAN Yuan, LIU Lin (657)
- Farmland soil moisture inversion by synergizing optical and microwave remote sensing data MA Hongzhang, ZHANG Linjing, SUN Lin, LIU Qinhua (673)

Remote Sensing Applications

- Bohai sea front detection using BJ-1 small satellite data PING Bo, SU Fenzhen, DU Yunyan, SU Weiguang (686)
- Retrieving forest background reflectance in northeast of China from MODIS BRDF data: Taking Jiagedaqi District as a case study GU Chunming, LIU Zhenbo, GE Yunjian (696)
- Spatiotemporal diversity and regionalization of the urban thermal environment in Beijing QIAO Zhi, TIAN Guangjin (715)



封面说明

About the Cover
GLASS叶面积指数产品
GLASS LAI product

针对全球叶面积指数 (LAI) 产品存在的数据缺失、不连续和不确定性较大等问题, 北京师范大学全球变化数据处理与分析中心 (<http://www.bnu-datacenter.com/>) 发布了 1981 年—2013 年的全球 GLASS LAI 产品。该产品利用“多输入 - 多输出”的广义回归神经网络反演算法, 将一年的 MODIS 或 AVHRR 地表反射率数据作为输入, 一次性输出获得一年的 LAI 产品。GLASS LAI 产品具有空间完整、时间序列平滑连续等特点, 且精度优于 MODIS 和 GEOV1 等全球 LAI 产品, 可以很好地反映全球植被的物候变换规律。基于该产品的部分研究成果请见本期“陆表遥感数据产品的分析研究”专栏。

Current satellite Leaf Area Index (LAI) products are not continuous in both space and time, and their accuracies also need to be improved. In order to solve these problems, the Global Land Surface Satellite (GLASS) LAI product is generated and released by the Center for Global Change Data Processing and Analysis of Beijing Normal University (<http://www.bnu-datacenter.com/>), which is available from 1981 to 2013. This product was retrieved from time-series MODIS and AVHRR surface reflectance data, using the General Regression Neural Networks (GRNNs) which were trained by the fused time-series LAI values from MODIS and CYCLOPES LAI products and the reprocessed time-series MODIS or AVHRR surface reflectance values at the BELMANIP sites. The reprocessed MODIS or AVHRR surface reflectance data from an entire year were entered into the GRNNs to estimate the one-year LAI profiles. Comparison of the GLASS LAI product with the MODIS and GEOV1 LAI products indicates that the GLASS LAI product has the best spatial integrity and temporal smoothness. The accuracy of the product is evaluated against a number of available LAI reference maps, the values were closer to the LAI reference maps than the GEOV1 and MODIS LAI values. Some details about GLASS LAI product will be discussed in six papers published in the column of “Analysis research of the land remote sensing product” in this issue.

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