



遥感学报

2021 | 06
Vol.25

NATIONAL REMOTE SENSING BULLETIN

ISSN 1007-4619 CN11-3841 / TP CODEN YXAUAB



百种中国杰出学术期刊

遥感学报

Yaogan Xuebao

第 25 卷 第 6 期 2021 年 6 月

目 次

中国遥感卫星

GF-5 AIUS 水汽廓线反演算法研究 苗晶, 李小英, 王红梅, 王雅鹏, 朱松岩, 王智灏 (1201)

融合多源遥感数据的高分辨率城市植被覆盖度估算 皮新宇, 曾永年, 贺城墙 (1216)

技术方法

植被光能利用率遥感估算 朱安然, 孙睿, 王梦佳 (1227)

深度递归残差网络的遥感图像空谱融合 王芬, 郭擎, 葛小青 (1244)

联合空谱信息的高光谱影像深度胶囊网络分类 高奎亮, 余旭初, 宋治杭, 张晋, 刘冰, 孙一帆 (1257)

密集卷积残差网络的遥感图像融合 陈毛毛, 郭擎, 刘明亮, 李安 (1270)

遥感应用

结合无人机航空摄影测量的河道流量估算 杨胜天, 王鹏飞, 王娟, 娄和震, 巩同梁 (1284)

ICESat-2 植被冠层高度和地表高程数据产品用于森林高度提取的效果评价

董佳臣, 倪文俭, 张志玉, 孙国清 (1294)

SAR 与光学遥感影像的玉米秸秆覆盖度估算 刘之榆, 刘忠, 万炜, 黄晋宇, 王佳莹, 郑曼迪 (1308)

顾及多径环境差异和粗差的 GNSS-MR 土壤湿度反演 李婷, 张显云, 邓小东, 李宏达, 聂士海 (1324)

动态变化率与最大差值相结合的陆表生态变化检测 李晓东, 宋开山 (1338)

本期责任编辑: 尤笛

《遥感学报》网络版: www.jors.cn

《遥感学报》微信公众号及官网



订阅号



官网

NATIONAL REMOTE SENSING BULLETIN

(Vol. 25 No.6 June, 2021)

CONTENTS

Chinese Satellites

Atmospheric water vapor profiles retrieval algorithm for Occultation Satellite-based Infrared Payloads
..... MIAO Jing, LI Xiaoying, WANG Hongmei, WANG Yapeng, ZHU Songyan, WANG Zhihao (1215)

High-resolution urban vegetation coverage estimation based on multi-source remote sensing data fusion
..... PI Xinyu, ZENG Yongnian, HE Chengqiang (1226)

Technologies and Methodologies

Estimation of light use efficiency by using remote sensing data ZHU Anran, SUN Rui, WANG Mengjia (1239)

Pan-sharpening by deep recursive residual network WANG Fen, GUO Qing, GE Xiaoqing (1256)

Deep capsule network combined with spatial-spectral information for hyperspectral image classification
..... GAO Kuiliang, YU Xuchu, SONG Zhihang, ZHANG Jin, LIU Bing, SUN Yifan (1268)

Pan-sharpening by residual network with dense convolution for remote sensing images
..... CHEN Maomao, GUO Qing, LIU Mingliang, LI An (1283)

Remote Sensing Applications

River flow estimation method based on UAV aerial photogrammetry
..... YANG Shengtian, WANG Pengfei, WANG Juan, LOU Hezhen, GONG Tongliang (1293)

Performance of ICESat-2 ATL08 product on the estimation of forest height by referencing to small footprint
LiDAR data DONG Jiachen, NI Wenjian, ZHANG Zhiyu, SUN Guoqing (1307)

Estimation of maize residue cover on the basis of SAR and optical remote sensing image
..... LIU Zhiyu, LIU Zhong, WAN Wei, HUANG Jinyu, WANG Jiaying, ZHENG Mandi (1323)

GNSS-MR soil moisture retrieval considering the multipath environments differences and gross error
..... LI Ting, ZHANG Xianyun, DENG Xiaodong, LI Hongda, NIE Shihai (1337)

Terrestrial change detection integrating the Dynamic Ratio and the Max-difference Algorithm
..... LI Xiaodong, SONG Kaishan (1350)



封面说明

About the Cover

海洋一号D卫星青海湖遥感影像

HY-1D satellite remote sensing image of Qinghai Lake

封面图片为海洋一号 D 卫星海岸带成像仪 2020 年 9 月 23 日获取的环青海湖影像，青海湖是中国最大的内陆高原咸水湖，中国西部重要的水源涵养地和水汽循环通道，是维系青藏高原生态安全的重要水体，也是阻止西部荒漠化向东蔓延的天然屏障。图像显示湖中水色呈蓝色，水中有涡旋，层次分明，山脉、岛屿、积雪、沙漠、植被、河流以及共和县内的成片太阳能板轮廓清晰。海洋一号 D 卫星是中国海洋水色系列的第 4 颗卫星，与海洋一号 C 卫星构成上下午观测星座，卫星运行管理及数据分发由自然资源部国家卫星海洋应用中心负责。星上配置包括海洋水色水温扫描仪、海岸带成像仪、紫外成像仪、星上定标光谱仪以及船舶自动识别系统 5 个载荷，每天生成 40 多种标准产品与多种应用产品。海洋水色水温扫描仪含有可见光、近红外、热红外 10 个通道，空间分辨率 1.1 km，幅宽大于 2900 km，每天可对全球覆盖两次；海岸带成像仪含红、绿、蓝、近红外 4 个波段，空间分辨率优于 50 m，幅宽大于 950 km，对关注的阳照区域实现每 3 天覆盖一次，在全球大洋水色水温和中国近海海域与海岛业务化监测、海岸带资源环境调查、海洋防灾减灾、海洋资源可持续利用、海洋与陆地江河湖泊生态预警与环境保护中发挥作用。海洋卫星数据免费共享下载地址：<http://osdds.nsoas.org.cn>。

The cover image shows the plentiful environment elements around Qinghai Lake which was obtained by Coastal Zone Imager (CZI) onboard HY-1D satellite on September 23, 2020. HY-1D satellite is the fourth one in China's ocean color satellite series, together with HY-1C satellite launched in 2018, the twin satellites constellation with morning and afternoon ocean color observations have been achieved in 2020, which are in the charge of National Satellite Ocean Application Service of the Ministry of Natural Resources (NSOAS, MNR). There are five payloads: Ocean Color and Sea Surface Temperature Scanner (COCTS), Coastal Zone Imager (CZI), UltraViolet Imager (UVI), Satellite-based Calibration Spectrometer (SCS) and Automatic Identification System (AIS) for ships locations. More than 40 standard products and high level products are produced operationally each day. There are ten channels with COCTS spreading from visible, near infrared to thermal infrared ranges with spatial resolution 1.1 km and swath more than 2900 km. It can cover the globe earth twice a day. The four bands of CZI include: red, green, blue and near infrared bands with spatial resolution better than 50 m and swath more than 950 km, which can observe the concerned zones once every three days. To obtain the free satellite data, visit <http://osdds.nsoas.org.cn>.

遥感学报

NATIONAL REMOTE SENSING BULLETIN

YAOGAN XUEBAO (月刊 1997年创刊)

(Monthly, Published since 1997)

第25卷 第6期 2021年6月25日

Vol.25 No.6 June 25, 2021

主 管 中国科学院	Superintended by	Chinese Academy of Sciences
主 办 中国科学院空天信息创新研究院	Sponsored by	Aerospace Information Research Institute, Chinese Academy of Sciences
主 编 吴一戎	Editor in Chief	WU Yirong
编 辑 《遥感学报》编辑部 北京市海淀区北四环西路19号 邮编：100190 电话：86-10-58887052 http://www.jors.cn E-mail: nrsb@aircas.ac.cn	Edited by	Editorial Office of National Remote Sensing Bulletin Add: P.O.Box 2702, Beijing 100190, China Tel: 86-10-58887052 http://www.jors.cn E-mail: nrsb@aircas.ac.cn
出 版 科 学 出 版 社	Published by	Science Press
印刷装订 北京科信印刷有限公司	Printed by	Beijing Kexin Printing Co. Ltd.
总 发 行 科 学 出 版 社 北京东黄城根北街16号 国内邮发代号：82-324 邮政编码：100717 电话：86-10-64017032 淘宝店铺名称：中科期刊	Distributed by	Science Press Add: 16 Donghuangchenggen North Street, Beijing 100717, China Tel: 86-10-64017032 Taobao: Zhongke Journal
国外发行 中国国际图书贸易总公司 北京 399 信箱 邮政编码：100044 国外发行代号：BM 1002	Overseas distributed by	China International Book Trading Corporation Add: P.O.Box 399, Beijing 100044, China

中国标准连续出版物号：ISSN 1007-4619

CN 11-3841/TP

CODEN YXAUAB

eISSN 2095-9494

定价：70.00元



官网



微站



淘宝



B站

ISSN 1007-4619



9 771007 461217