



2019年第31期总198期

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## ▶ 前沿资讯

### 1 . NASA SEDAC Invites Community Submissions of Human Dimensions Data (NASA社会经济数据和应用中心 (SEDAC) 邀请社区提交人体-环境维度数据)

**简介:** 由CIESIN运营的NASA社会经济数据和应用中心 (SEDAC) 开始接收人类-环境相互作用相关的科学数据的提交。这些数据对人类和应用社区的研究具有很高的实用价值。鉴于高校、科学出版商、资助机构和其他相关组织对开放获取的研究数据重要性的认识程度提高, SEDAC此次将提高全球或区域范围内空间数据的可访问性和利用率, 特别是那些来自NASA以及其他来源作为NASA数据补充部分的遥感数据。SEDAC还考虑采购其他标准类型的数据, 包括行政边界、人口动态、社区及基础设施、土地利用和土地覆盖变化、经济发展、环境卫生以及与政策相关的环境和可持续发展指标。

**来源:** 国际地球科学信息中心 (Ciesin)

**发布日期:**2019-07-30

**全文链接:**<http://agri.ckcest.cn/file1/M00/06/8D/Csgk0F1CogKADaUwAAHDsKy5arA433.pdf>

### 2 .Using satellite information to help rebuild after a disaster (卫星数据帮助灾后重建)

**简介:** ESA and the Asian Development Bank have joined forces to help the Indonesian government use satellite information to guide the redevelopment following the earthquake and tsunami that devastated the provincial capital of Palu and surroundings last year. On 28 September 2018, the Indonesian island of Sulawesi was struck by a 7.5 magnitude earthquake. The epicentre was on the island's northwest coast 77 km north of Palu, which lies at the head of a long narrow bay. The quake triggered a tsunami that swept huge surges of water as high as 10 m along the bay and swamped the city.

**来源:** 欧洲宇航局 (ESA)

**发布日期:**2019-07-12

**全文链接:**[http://www.esa.int/Our\\_Activities/Observing\\_the\\_Earth/Copernicus/Sentinel-1/Using\\_satellite\\_information\\_to\\_help\\_rebuild\\_after\\_a\\_disaster](http://www.esa.int/Our_Activities/Observing_the_Earth/Copernicus/Sentinel-1/Using_satellite_information_to_help_rebuild_after_a_disaster)

## ▶ 学术文献

### 1 . An efficient pixel clustering-based method for mining spatial sequential patterns from serial remote sensing images (一种高效的基于像素聚类的空间序列图像挖掘方法 )

**简介:** The accumulation of serial remote sensing images provides plentiful data for discovering sequential spatial patterns in various fields such as agricultural monitoring, urban development, and vegetation cover. Otherwise, traditional sequential pattern-mining algorithms cannot be directly or efficiently applied to remote sensing images. In this study,

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we propose a pixel clustering-based method to improve the efficiency of mining spatial sequential patterns from raster serial remote sensing images (SRSI). Firstly, the images are compressed by using the Run-Length coding schema. Then, pixels with identical sequences are clustered by means of the Run-length code-based spatial overlay operation. Finally, a pruning strategy is proposed, to extend the prefixSpan algorithm to skip unnecessary database scanning when mining from pixel groups. The experimental results indicate that the method presented in this paper could extract spatial sequential patterns from SRSI efficiently. Although accurate support rates for the patterns may not be obtained, our method could ensure that all patterns are extracted with a lower time cost.

来源: Computers & Geosciences

发布日期: 2019-03

全文链接: <http://agri.ckcest.cn/file1/M00/06/8D/Csgk0F1CpSeAXhS1AI1qnr5pvI724.pdf>

## 2 . Analysis and identification of abandoned agricultural land using remote sensing methodology (利用遥感方法分析和识别废弃的农业用地)

简介: The management of abandoned agricultural land as well as their effective use are relevant for any country to a greater or lesser extent. An attempt to tackle the problems of ineffective utilization of abandoned agricultural land is made in Lithuania and elsewhere. While analyzing the issues related to abandoned agricultural land, a clear definition of an abandoned area is important to perceive as well as potential methods for the identification of such areas are needed to analyse. Also, in order to suggest an effective utilisation of abandoned agricultural land for sustainable land use in the country, the analysis and statistics of such land is important to undertake. The paper discusses the analysis of abandoned agricultural land in Lithuania, providing the dynamics of changes of abandoned agricultural land and the percentage distribution of such land across Lithuania. Also, the factors, which caused the abandoned agricultural land appearance in Lithuania identified and described. The Remote Sensing method identified and analysed as the most effective methodology for abandoned agricultural land identification. A collection of spatial data on abandoned agricultural land was formed on the base of spectral images of the terrene obtained from an artificial Earth satellite and a map of abandoned agricultural areas was created upon applying remote cartographic methods.

来源: Land Use Policy

发布日期: 2019-03

全文链接: [http://agri.ckcest.cn/file1/M00/06/8D/Csgk0F1CpB2AeyUBABHul9kp\\_ZI547.pdf](http://agri.ckcest.cn/file1/M00/06/8D/Csgk0F1CpB2AeyUBABHul9kp_ZI547.pdf)

### ➤ 科技报告

## 1 . South Atlantic Water Science Center Strategic Science Plan:

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## 2019–23 (南大西洋水科学中心科学战略计划：2019–2023)

简介：The South Atlantic Water Science Center Strategic Science Planning Team has developed a unified strategic science plan to guide the science vision of the South Atlantic Water Science Center (SAWSC) in response to the merging of the Georgia, North Carolina, and South Carolina Water Science Centers. This plan proposes a path forward to keep SAWSC science activities relevant to the many diverse needs of stakeholders in the South Atlantic region (Georgia, North Carolina, and South Carolina) and considers the hydrologic setting and issues of the region. This plan advises the creation of five working groups to address five priority science topics for the period 2019–23 and beyond. The five priority science topics are (1) Foundational Data, (2) Effects of Land-Use Change, (3) Coastal Plain Science, (4) Water Availability, and (5) Hazards. From the goals laid forth in this plan for each priority science topic, the working groups plan to devise a set of strategic actions and milestones to be achieved by the SAWSC to provide valuable and relevant data, research, and assessments in the South Atlantic region. In this report, the “South Atlantic region” is used to describe the area encompassed by the States of North Carolina, South Carolina, and Georgia.

来源：美国地质调查局（USGS）

发布日期：2019-07-30

全文链接：<http://agri.ckcest.cn/file1/M00/06/8D/Csgk0F1Co4WAQ2kRAF-6uQG1fM0097.pdf>