

月刊



ISSN 1001-1595

CN 11-2089/P

CODEN CEXUER

# 测绘学报

## 9/2021

第50卷 第9期 Vol.50 No.9

### 智能化测绘专栏

专栏客座主编：陈 军

## ACTA GEODAETICA et CARTOGRAPHICA SINICA

主管：中国科学技术协会

主办：中国测绘学会

国内邮发代号：2-224

国外发行代号：Q615

定价：60.00

万方数据

测绘学报

第五十卷 第九期

二〇二一年九月

测绘出版社有限公司

# 测 绘 学 报

2021 年 9 月 第 50 卷 第 9 期

## 目 次

### 智能化测绘

地理空间智能研究进展和面临的若干挑战 ... 张永生,张振超,童晓冲,纪松,于英,赖广陵 (1137)

动态精密工程测量技术及应用 ..... 李清泉,张德津,汪驰升,陈智鹏,涂伟 (1147)

### 测量机器人的关键技术

..... 闫利,陈宇,谢洪,戴集成,赵英豪,胡啸,李瑶,赵功洋,王月琴 (1159)

深度学习赋能地图制图的若干思考 ..... 艾廷华 (1170)

### 时空知识中心的研究进展与应用

... 刘万增,陈军,翟曦,李然,王新鹏,赵勇,朱秀丽,徐柱,赵婷婷,彭云璐,慎利 (1183)

### 从地理信息服务到地理知识服务:基本问题与发展路径

..... 慎利,徐柱,李志林,刘万增,崔秉良 (1194)

面向地理路网的交通信号智能协同控制方法 ..... 郑晔,郭仁忠,马丁,赵志刚,李晓明 (1203)

### 大地测量学与导航

#### 联合少量地面控制源的空间信息网轨道确定与时间同步

..... 陈锐志,蔚保国,王甫红,龚学文,鲍亚川,王磊,刘万科,付文举 (1211)

#### InSAR 三维同震地表形变监测——窗口优化的 SM-VCE 算法

..... 刘计洪,胡俊,李志伟,朱建军 (1222)

### 摄影测量学与遥感

全波形星载激光测距误差抑制的滑动窗口高斯拟合算法 ..... 谢俊峰,刘仁 (1240)

车载激光点云中交通标线自动分类与矢量化 ..... 方莉娜,王爽,赵志远,付化胜,陈崇成 (1251)

### 地图学与地理信息

多尺度 GTWR 城市住宅价格建模与分析 ..... 叶健,胡鑫,徐鸿蒙,陈曦,吕琦 (1266)

### 博士论文摘要

煤矿三维地质与巷道建模方法研究及应用 ..... 贾庆仁 (1275)

煤与矸石的光谱分析方法与遥感应用研究 ..... 宋亮 (1276)

基于多源数据的电离层异常监测及 GNSS 影响效应研究 ..... 程娜 (1277)

倾斜立体影像匹配若干问题研究 ..... 余美 (1278)

## CONTENTS

### Smart Surveying and Mapping

Progress and challenges of geospatial artificial intelligence

.....ZHANG Yongsheng ,ZHANG Zhenchao ,TONG Xiaochong ,JI Song ,YU Ying ,LAI Guangling (1137)

Technology and applications of dynamic and precise engineering surveying

..... LI Qingquan ,ZHANG Dejin ,WANG Chisheng ,CHEN Zhipeng ,TU Wei (1147)

Surveying robot and its key technology

..... YAN Li ,CHEN Yu ,XIE Hong ,DAI Jicheng ,ZHAO Yinghao ,HU Xiao ,LI Yao ,ZHAO Leyang ,WANG Yueqin (1159)

Some thoughts on deep learning enabling cartography ..... AI Tinghua (1170)

Research progress and application of spatiotemporal knowledge center ..... LIU Wanzeng ,CHEN Jun ,

ZHAI Xi ,LI Ran ,WANG Xinpeng ,ZHAO Yong ,ZHU Xiuli ,XU Zhu ,ZHAO Tingting ,PENG Yunlu ,SHEN Li (1183)

From geographic information service to geographic knowledge service ; research issues and development roadmap

..... SHEN Li ,XU Zhu ,LI Zhilin ,LIU Wanzeng ,CUI Bingliang (1194)

Multi-agent cooperative control for traffic signal on geographic road network

..... ZHENG Ye ,GUO Renzhong ,MA Ding ,ZHAO Zhigang ,LI Xiaoming (1203)

### Geodesy and Navigation

Orbit determination and time synchronization of spatial information network combining sparse regional ground

stations ... CHEN Ruizhi ,YU Baoguo ,WANG Fuhong ,GONG Xuwen ,BAO Yachuan ,WANG Lei ,LIU Wanke ,FU Wenju (1211)

Estimation of 3D coseismic deformation with InSAR ; an improved SM-VCE method by window optimization

..... LIU Jihong ,HU Jun ,LI Zhiwei ,Zhu Jianjun (1222)

### Photogrammetry and Remote Sensing

Sliding window Gaussian fitting algorithm for ranging error suppression of full-waveform spaceborne laser

.....XIE Junfeng ,LIU Ren (1240)

Automatic classification and vectorization of road markings from mobile laser point clouds

.....FANG Lina ,WANG Shuang ,ZHAO Zhiyuan ,FU Huasheng ,CHEN Chongcheng (1251)

### Cartography and Geoinformation

Modeling and analysis of urban housing price models based on multiscale geographically and temporally weighted

regression ..... YE Jian ,HU Xin ,XU Hongmeng ,CHEN Xi ,LÜ Qi (1266)

### Summary of PhD Thesis

Research and applications on methodologies for three-dimensional geological and roadway modeling in coal mine

..... JIA Qingren (1275)

Study on spectral analysis method and remote sensing application of coal and coal gangue ..... SONG Liang (1276)

Study on ionosphere anomaly monitoring based on multi-source data and its effect on GNSS ..... CHENG Na (1277)

Research on several issues of oblique stereo image matching ..... YU Mei (1278)