首都师范大学资源环境与旅游学院多篇论文入选联合国教科文组织推荐案例

2020 年资源环境与旅游学院地面沉降团队取得重要进展，目前已有 8 篇论文入选联合国教科文组织（UNESCO）地面沉降推荐案例（https://www.landsubsidence-unesco.org）.

以青年教师、研究生为主体的研究团队，依托国家自然科学基金重点项目、北京卓越青年科学家计划项目及自然资源部京津冀地下水动态监测网和沉降野外台站等，针对京津冀新水情、新背景下，区域地面沉降系统演化的新机制、新规律，优化集成 GRACE-InSAR、人工智能方法（Geo-AI）和新型地球物理勘探技术，结合野外台站数据，识别京津冀地面沉降多元演化模式，揭示多尺度区域地下水 - 地面沉降多元场演化过程、差异特征和成因机制 . 为北京地面沉降防治规划、京津冀地面沉降防治规划和国家综合防灾减灾“十四五”规划等重大规划的编制提供了重要科学依据，为落实中央及北京市政府关于地面沉降防控的重要指示提供了技术支撑 .

代表论文

[1] YU H R, GONG H L, CHEN B B, et al. Analysis of the influence of groundwater on land subsidence in Beijing based on the geographical weighted regression (GWR) model[J]. Science of the Total Environment, 2020(738): 139405.

[2] DUAN L, GONG H L, CHEN B B, et al. An improved multi-sensor MTI time-series fusion method to monitor the subsidence of Beijing subway network during the past 15 years[J]. Remote Sensing, 2020, 12(13): 2125.

[3] GUO L, GONG H L, LI J W, et al. Understanding uneven land subsidence in Beijing, China, using a novel combination of geophysical prospecting and InSAR[J]. Geophysical Research Letters, 2020, 47(16): e2020GL088676.

[4] LI F K, GONG H L, CHEN B B, et al. Analysis of the contribution rate of the influencing factors to land subsidence in the Eastern Beijing Plain, China based on extremely randomized trees (ert) method[J]. Remote Sensing, 2020,12(18): 2963.

[5] ZHU L, FRANCESCHINI A, GONG H L, et al. The 3-D facies and geomechanical modelling of land subsidence in the Chaobai Plain, Beijing[J]. Water Resources Research, 2020, 56(3): e2019WR027026.

[6] ZHOU D, MILAS A S, YU J, et al. Integrating RELAX with PS-InSAR technique to improve identification of persistent scatterers for land subsidence monitoring[J]. Remote Sensing, 2020,12(17): 2730.

[7] ZHU L, GONG H L, CHEN Y, et al. Effects of water diversion project on groundwater system and land subsidence in Beijing, China[J]. Engineering Geology, 2020(276): 105763.

[8] SHI M, GONG H L, GAO M L, et al. Recent ground subsidence in the North China Plain, China, revealed by sentinel-1A datasets[J]. Remote Sensing, 2020, 12(21): 3579.