

An Open GIScience Challenge

Special Issue of International Journal of Geographical Information Science (IJGIS)
Open Call for Submissions

This special issue aims to promote Open GIScience with reproducibility and transparency of scientific work. With increasing availability of geospatial portals and depositories, GIScience is ripe for sharing data and codes to improve the reliability and credibility of published scientific work. As a step forward, IJGIS calls for submissions to facilitate action toward Open GIScience. In addition to double-blinded peer-review publications, the guest editors in consultation with IJGIS editorial team will select the best paper(s) from the issue, with a prize pot of US\$ 1,000, a certificate, and six months' free access on the IJGIS website. All accepted manuscripts may post the un-typeset versions on their websites upon acceptance. Authors can also opt for open access publications in the journal.

To provide a common baseline with an international scope, the Geographic Information Science and Technology Group at the US Oak Ridge National Laboratory kindly makes available a high-quality spatiotemporal database from the World Spatiotemporal Analytics and Mapping Project (World STAMP) for the Open GIScience Challenge. The database includes over 16,000 attributes, 50 years of time, and 200+ nation states. All submissions to the special issue must utilize *some* data from World STAMP which has harmonized, consolidated and created searchable crosswalks over several open data sources. World STAMP can be freely accessed at wstamp.ornl.gov. Authors will first request a World STAMP account using the term "An Open GIScience Challenge" as the reason for access. After logging in, a quick start guide is available at (<https://wstamp.ornl.gov/documentation/WSTAMPQuickReference.pdf-view>) which explains how to access data, analytics, and how to cite sources properly. Authors are welcome to include additional open data sources along with the selected World STAMP data. Examples of other open data sources include data from government agencies, non-profit organizations, commercial open data depositories, and research communities.

We welcome submissions that develop novel algorithms, uncover interesting patterns, identify outliers, or model relationships or trends. All submissions must clearly describe the open data sources used in the research and submit codes as supplemental files. Once accepted for publications, we expect that authors agree to make codes available in Github, the Open Science Center, or public accessible cloud storage (e.g., box, dropbox, google drive, Amazon drive, onedrive, etc.).

Submission Procedure

Full manuscripts, including any supporting materials, should be submitted using the journal's online Manuscript Central facility (<http://mc.manuscriptcentral.com/ijgis>) by **31 July 2019**, and the authors should specify this SI as the target during their submission. Guideline for submission of full manuscripts can be found at:

<http://www.tandfonline.com/action/authorSubmission?journalCode=tgis20&page=instructions/>.

The *International Journal of Geographical Information Science* considers all manuscripts on the strict condition that they have been submitted only to the *International Journal of Geographical Information Science*, that they have not been published already, nor are they under consideration for publication or in press elsewhere. Authors who fail to adhere to this condition will be charged with all costs that the *International Journal of Geographical Information Science* incurs for their papers, and their papers will not be published.

Important Dates

- Optional Abstracts (no more than 250 words) Due: 5 January 2019. The guest editors will provide feedbacks whether the research falls in the scope of the special issue.
- Full manuscripts Due: 31 July 2019

Tentative schedule:

We expect initial editorial decisions to be made in September 2019, with manuscript revisions taking place and second reviews over September 2019 and February 2020. Final decisions are expected in April 2020. Accepted manuscripts will go online (including a DOI) within weeks after acceptance. We expect the special issue to be published in May 2020.

Special Issue Guest Editors

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Robert Stewart, US Oakridge National Laboratory (stewartrn@ornl.gov)

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References on World STAMP

Piburn, J., Stewart, R., Myers, A., Sorokine, A., Axley, E., Anderson, D., Burdette, J., Biddle, C., Hohl, A., Eberle, R. and Kaufman, J., 2017. The World Spatiotemporal Analytics and Mapping Project (WSTAMP): Further Progress in Discovering, Exploring, and Mapping Spatiotemporal Patterns Across the World's Largest Open Source Data Sets. *ISPRS Annals of Photogrammetry, Remote Sensing & Spatial Information Sciences*, 4.

Piburn, J., Stewart, R. and Morton, A., 2017. An Approximate Entropy-Based Approach for Quantifying Stability in Spatio-Temporal Data with Limited Temporal Observations. In *21st International Conference on GeoComputation*.

Piburn, J, A Morton, and R.N. Stewart (2017). Attribute Portfolio Distance: A Dynamic Time Warping based approach to comparing and detecting common spatiotemporal patterns among multi-attribute data portfolios. *Advances in Geocomputation: Geocomputation 2015--The 13th International Conference*. D. A. Griffith, Y. Chun and D. J. Dean. Cham, Springer International Publishing: 197-205.