



RESEARCH ARTICLE

Long Title for JOSIS Article

Nameof Author1 and Nameof Author1

Department, Institution, Country

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Abstract: Add your article abstract here, 150-250 words.

Keywords: add, five, to, ten, comma, separated, keywords

1 Introduction

This template provides a guide to formatting articles for submission to the Journal of Spatial Information Science, JOSIS, <http://josis.org>. When preparing an article for submission, please follow this template closely, referring to past JOSIS articles (open access on the JOSIS web site) for further examples.

2 Author guidelines

2.1 Manuscript preparation

Manuscripts must be written in English in a clear, direct, and active style. All pages must be numbered sequentially. The manuscript should be submitted as a PDF file based on this L^AT_EX template.

2.2 Title

The title should be concise, and must not be more than 20 words. Authors should also provide a short “running title.”

2.3 Authors and institutional affiliations

Authors are required to provide their full names and their institutional affiliations, omitting postal addresses.

2.4 Abstract

The abstract should summarize the essential features of the article, and must not exceed 250 words for full papers. Abbreviations should be avoided in the abstract, and references should not be cited in the abstract.

2.5 Keywords

Your submission must include between five and ten keywords for your article. Accepted manuscripts must additionally specify further index terms as appropriate.

2.6 Main Text

The main text should be divided into separate sections, and may be further subdivided according to the areas to be discussed. The manuscript style must be uniform throughout the text using 11pt Palatino font. The first appearance of any abbreviations in the text should be preceded by the full term, unless it is a standard abbreviation or unit of measurement. Reference numbers should be given in square brackets in the text. Common or assimilated words from Latin or other languages should not be italicized, including *per se*, *et al.*

2.7 Style

Many examples of the journal style can be seen in existing JOSIS published articles, <http://josis.org>. Please pay particular attention to the following style requirements:

- Spelling: Please use standard American English spelling throughout.
- Punctuation: JOSIS uses standard American English punctuation. In particular, please ensure:
 - all lists items are always separated by punctuation (e.g., “a, b, and c” but not “a, b and c”); and
 - commas and periods always appear inside quotation marks (e.g., “x, y, and z.” but not “x, y, and z”).
- Capitalization: JOSIS style is to only use capitals only for the beginning of sentences, proper nouns, names (e.g., Norman, ArcMap) and, where appropriate, acronyms (e.g., GIS). Please avoid capitalization of other words (e.g., “geographic information systems (GIS)” but not “Geographic Information Systems (GIS)”) and in titles, including section headings (e.g., “Affordance-based individuation of junctions in Open Street Map” but not “Affordance-Based Individuation of Junctions in Open Street Map”).

2.8 Figures

Figures and Tables must be numbered consecutively with a concise explanatory caption, and must be referred to in the main text with capitalized reference (e.g., “Figure 1” or “Table 1”). Figures and Tables must appear in the text close to where they are first referred to in the main text. Figure and table captions come below the figure or table. Do not collect figures or tables together at the end of the article. Authors of accepted articles will need to supply high quality versions of all figures as separate .eps (encapsulated postscript) files.



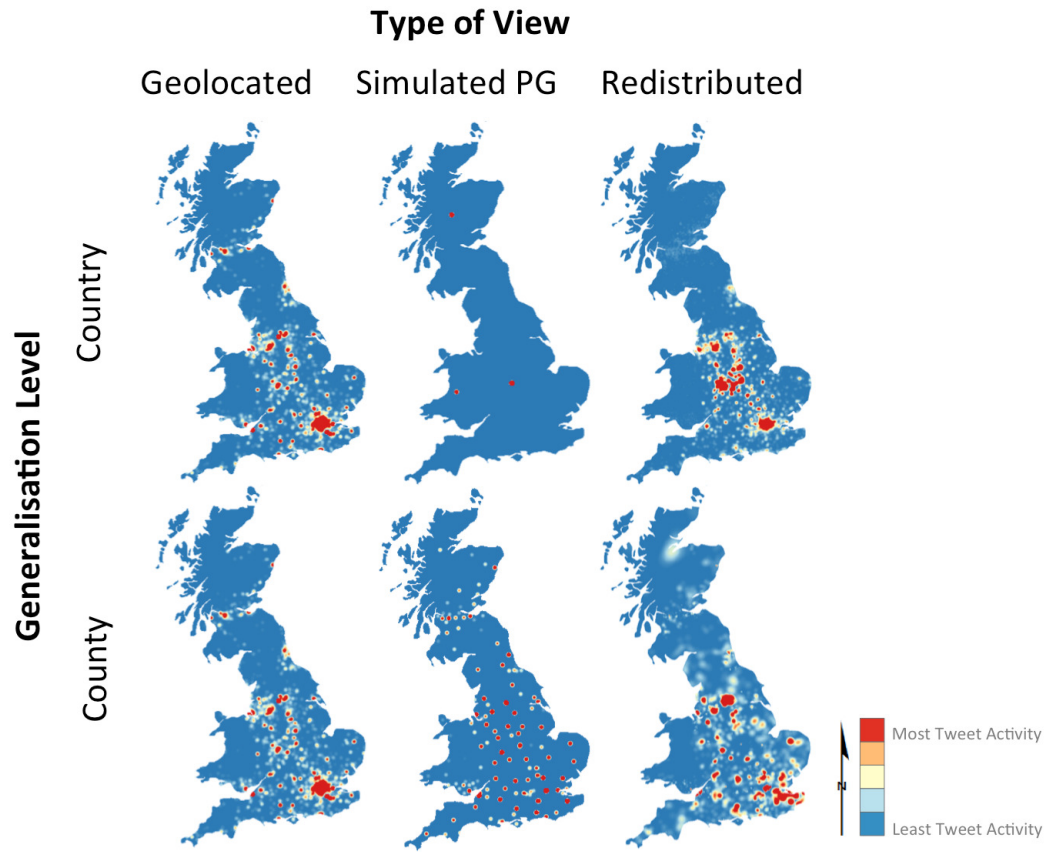


Figure 1: An illustrative figure, after [7].

Text column	Numerical column 1	Numerical column 2
First row	10	0.003
Second row	52	10.037
Third row	729	150.315
...

Table 1: Example table with preferred line rules and alignment.

2.9 Algorithms

Algorithms should be formatted using standard algorithm packages where possible, as in Algorithm 1.

Algorithm 1 Example algorithm formatting after [11]

Require: A finite set of two-dimensional points $P \subset \mathbb{R} \times \mathbb{R}$ and one parameter $\lambda \in \mathbb{R}$

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1: Construct the Delaunay triangulation  $DT(P)$  of  $P$ 
2:  $\Delta \leftarrow DT(P)$ 
3: Construct the list  $B$  of exterior edges of  $DT(P)$ 
4: Sort the list  $B$  in descending order of edge length
5: Initialize the  $v$ -boundary function
6: Set the root ( $r$ ) of  $\mathbf{T}_\chi(P, \lambda)$  to be  $\{\text{edge} = \emptyset, \text{oppositeVertex} = \emptyset, \text{length} = \emptyset\}$ 
7: Construct the list of parent nodes ( $PN$ ) for the elements in  $B$ 
8: Set each element in  $PN$  to be  $r$ 
9:  $O(P, \lambda) \leftarrow \emptyset$ 
10: while  $B$  is not empty do
11:    $e = \{d_1, d_2\} \leftarrow \text{pop}(B)$ 
12:    $p \leftarrow \text{pop}(PN)$ 
13:    $o \leftarrow \text{opposite vertex of } e \text{ in } \Delta$ 
14:    $N \leftarrow \{\text{edge} = e, \text{oppositeVertex} = o, \text{length} = \|e\|\}$ 
15:   Insert  $N$  in  $\mathbf{T}_\chi(P, \lambda)$  as a child of  $p$ 
16:    $\text{node}(d_1) \leftarrow N$ 
17:    $\text{node}(d_2) \leftarrow N$ 
18:   Append  $N$  to  $O(P, \lambda)$ 
19:   if  $\|e\| > \lambda$  and  $v\text{-boundary}(o) = \text{false}$  then
20:     Remove  $e$  from  $\Delta$ 
21:      $v\text{-boundary}(o) = \text{true}$ 
22:     Insert the arms of  $e$  in  $\Delta$  into  $B$  in order of edge length
23:     Insert  $N$  into  $PN$  at the corresponding position of the arms of  $e$  in  $B$ 
24:   end if
25: end while
26: Return  $\chi(P, \lambda)$  formed by leaves of  $\mathbf{T}_\chi(P, \lambda)$ ,  $DT(P)$ ,  $\mathbf{T}_\chi(P, \lambda)$  and  $O(P, \lambda)$ 

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2.10 Footnotes

Footnotes are strongly discouraged in text. Where footnotes must be used, they should be numbered consecutively.

3 References

References must be listed in the numerical system (ACM). Citations must be numbered sequentially [in square brackets] in the main text. Full numbered references must be listed in the reference section in alphabetical order. The reference numbers must be finalized and the bibliography must be fully formatted before submission. Examples of citation styles included in the bibliography for this document include journal articles [2, 9], authored books [3], edited books [8], articles in proceedings [5], articles in books or collections [6], theses [10], technical reports [4], and web resources [1].

3.1 DOIs

All JOSIS articles must list the DOI of all references, where a DOI exists, see <http://josis.org/index.php/josis/about/submissions#authorGuidelines> for examples. Please check carefully to add the DOIs for cited references, adding DOIs to all references that have one. DOIs may be added in the “doi” field of the bibtex file.



DOIs can be found via <http://www.crossref.org/guestquery/> as well as many other search engines and publisher pages (e.g., Scopus, SpringerLink).

4 About JOSIS

The Journal of Spatial Information Science (JOSIS) is an international, interdisciplinary, open-access journal dedicated to publishing high-quality, original research articles in spatial information science. The journal aims to publish research spanning the theoretical foundations of spatial and geographical information science, through computation with geospatial information, to technologies for geographical information use.

JOSIS encourages submissions from topics including, but not limited to spatial and spatiotemporal information systems; computational geometry, geocomputation, spatial algorithms; geovisualization, cartography, and geographical user interfaces; computing with spatiotemporal information under uncertainty; spatial cognition and qualitative spatial reasoning; spatial data models and structures; conceptual models of space and geontology; distributed and parallel spatial computing, web-based GIS, and interoperability; context- and location-aware computing; and applications to GIS, spatial databases, location-based services, geosensor networks, and geosensor web. The journal publishes full-length original research articles, as well as survey-style review papers. In addition, the journal publishes shorter articles in three sections: reports from community activities, letters to the editors, and book reviews.

Acknowledgments

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