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ISSN: 2211-6753

### DESCRIPTION

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*Spatial Statistics* publishes articles on the theory and application of spatial and spatio-temporal statistics. It favours manuscripts that present theory generated by new applications, or in which new theory is applied to an important practical case. A purely theoretical study will only rarely be accepted. Pure case studies without methodological development are not acceptable for publication.

*Spatial statistics* concerns the quantitative analysis of spatial and spatio-temporal data, including their statistical dependencies, accuracy and uncertainties. Methodology for spatial statistics is typically found in probability theory, stochastic modelling and mathematical statistics as well as in information science. Spatial statistics is used in mapping, assessing spatial data quality, sampling design optimisation, modelling of dependence structures, and drawing of valid inference from a limited set of spatio-temporal data. Application fields include The physical domains, e.g. agriculture, geology, soil science, hydrology, ecology, mining, oceanography, forestry, air quality, remote sensing The social/economic domains, e.g. spatial econometrics, epidemiology and disease mapping.

*Spatial Statistics* aims to publish reproducible science. Authors are encouraged to submit and publish procedures and data, along with the manuscript.

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## GUIDE FOR AUTHORS

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### INTRODUCTION

**Spatial Statistics** will be the new leading platform in the field of spatial statistics. It publishes articles at the highest scientific level concerning important and timely developments in the theory and applications of **spatial** and **spatio-temporal statistics**. It favors manuscripts that present theory generated by new applications, or where new theory is applied to an important spatial problem.

**Spatial Statistics** concerns the **quantitative analysis of spatial data**, including their dependencies and uncertainties. **Spatio-temporal statistics** extend this to the **spatio-temporal domain**. It addresses three major types of spatial data: **lattice data**, **geostatistical data** that represent continuous spatial variation and **spatial point data**. These data all share a specific way of spatial dependence and a common hierarchical approach applies.

These types of data and dependence modeling have their logical extension into the space-time domain, where the relations remain similar, but estimation may be different. Methodology for spatial statistics is found in **probability, stochastics** and **mathematical statistics** as well as in information science. Typical applications are mapping of the data, assessing spatial data quality, modeling of the dependency structure and drawing valid inference on the basis of a limited set of data. Applications of spatial statistics may occur in but are not limited to the following fields: agriculture, geology, soils, hydrology, the environment, ecology, mining, oceanography, forestry, air quality, remote sensing, but also in social/economic fields like spatial econometrics, epidemiology and disease mapping.

This new journal favors manuscripts that present theory generated by new applications, or where new theory is applied to an important spatial problem. A purely theoretical study is acceptable if it includes a proper application, whereas a simple application without methodological development is not acceptable.

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*List:* References should be arranged first alphabetically and then further sorted chronologically if necessary. More than one reference from the same author(s) in the same year must be identified by the letters 'a', 'b', 'c', etc., placed after the year of publication.

#### *Examples:*

Reference to a journal publication:

Van der Geer, J., Hanraads, J.A.J., Lupton, R.A., 2010. The art of writing a scientific article. *J. Sci. Commun.* 163, 51–59.

Reference to a book:

Strunk Jr., W., White, E.B., 2000. *The Elements of Style*, fourth ed. Longman, New York.

Reference to a chapter in an edited book:

Mettam, G.R., Adams, L.B., 2009. How to prepare an electronic version of your article, in: Jones, B.S., Smith, R.Z. (Eds.), *Introduction to the Electronic Age*. E-Publishing Inc., New York, pp. 281–304.

Reference to a website:

Cancer Research UK, 1975. Cancer statistics reports for the UK. <http://www.cancerresearchuk.org/aboutcancer/statistics/cancerstatsreport/> (accessed 13 March 2003).

Reference to a dataset:

[dataset] Oguro, M., Imahiro, S., Saito, S., Nakashizuka, T., 2015. Mortality data for Japanese oak wilt disease and surrounding forest compositions. Mendeley Data, v1. <https://doi.org/10.17632/xwj98nb39r.1>.

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