2021 *JGS* best paper award and the editors' choice paper volume 24(1)

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With the first issue of 2022, it is our pleasure to continue two initiatives started in 2020 to acknowledge and celebrate the outstanding quality of research published in the journal. First, the annual ***JGS Best Paper Award***, and second, the **Editors' Choice** of their favourite paper of each issue. The members of the editorial board of the journal and/or the editors may nominate candidates for the *JGS* Best Paper award. Following the nominations, the decision about the award rests with the editors-in-chief of the journal. The winners of the yearly award and the authors of the quarterly editors' choice articles are listed on the website of the journal, alongside previous awardees. Their respective papers are made free access for a certain amount of time.

The objective of the ***JGS Best Paper Award*** is to encourage and recognize excellent scholarship published in the journal in the preceding year. For the year 2021, one excellent paper clearly stands out. It properly represents the broad scope of a journal that covers the fields of GIScience and spatial planning, as well as spatial statistics and econometrics.

In 2021 *JGS* published 22 papers, all undergoing a stringent peer review process. All of them are of excellent quality, making any decision about prizes normally a difficult one. Choosing among this pool of top research in our field this time was not difficult at all: The scientific community recognized the Open Access paper published online first on August 8, 2020 with outstanding attention in terms of accesses, citations and online attention. Therefore, it is our great pleasure to announce that the winner of the 2021 *JGS* Best Paper Award is the contribution by **Chris Brunsdon** and **Alexis Comber**, already acknowledged as Editors' Choice Paper Volume 23(4). Their respective original research paper is summarized next and can be accessed in full via the Journal's homepage (DOI is given below).

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2021 JGS Best Paper Award

Opening practice: supporting reproducibility and critical spatial data science

by **Chris Brunsdon** and **Alexis Comber**, published in the JGS 23(4) Special Issue on Open Spatial Sciences (2021), pages 477–496 (<https://doi.org/10.1007/s10109-020-00334-2>).

This paper is an earnest and eloquent call for the adoption of openness principles in spatial data sciences. Compared to even a few years ago, spatial data have become increasingly abundant, and in need of high-quality analytical skills. At the same time, the movement in open-source spatial analysis software has created opportunities to further opening the practice of spatial analysis. With their call, Brunsdon and Comber invite us to reflect about open software, open data and ultimately open science, and how to embrace those principles in the spatial sciences. The importance of said task already has lead us to recognize this paper as the Editors' Choice Paper Volume 23(4). The abstract of the paper is as follows:

This paper reflects on a number of trends towards a more open and reproducible approach to geographic and spatial data science over recent years. In particular, it considers trends towards Big Data, and the impacts this is having on spatial data analysis and modelling. It identifies a turn in academia towards coding as a core analytic tool and away from proprietary software tools offering 'black boxes' where the internal workings of the analysis are not revealed. It is argued that this closed form software is problematic and considers a number of ways in which issues identified in spatial data analysis (such as the MAUP) could be overlooked when working with closed tools, leading to problems of interpretation and possibly inappropriate actions and policies based on these. In addition, this paper considers the role that reproducible and open spatial science may play in such an approach, taking into account the issues raised. It highlights the dangers of failing to account for the geographical properties of data, now that all data are spatial (they are collected somewhere), the problems of a desire for $n = \text{all observations}$ in data science, and it identifies the need for a critical approach. This is one in which openness, transparency, sharing and reproducibility provide a mantra for defensible and robust spatial data science.

Chris Brunsdon has degrees from Durham University (BSc Mathematics) and Newcastle University (MSc Medical Statistics, PhD in Geography). He is Professor of Geocomputation, and Director of the National Centre for Geocomputation at Maynooth University. Prior to this he was Professor of Human Geography at the University of Liverpool in the UK, and before this, he worked in the Universities of Leicester, Glamorgan and Newcastle, all in the UK. Chris' interests cover spatial statistics, data science and spatial analysis. In particular, he advocates the use of open source

(Source: Photograph by Chris Brunsdon)

software, and reproducible methods, mainly via the R Statistical Programming Language. In terms of subject areas, he has interests in crime pattern analysis, health geography and environmental applications. He has published over 100 scholarly journal articles and is co-author with Alexis Comber of the 2015 book *An Introduction to R for Spatial Analysis and Mapping* and with Alex Singleton of the 2015 book *Geocomputation: A Practical Primer*.

Alexis Comber holds a PhD in Computer Science from the Macaulay Institute, Aberdeen (now the James Hutton Institute) and the University of Aberdeen. He is Professor of Spatial Data Analytics at Leeds Institute for Data Analytics (LIDA), the University of Leeds. Previously he held a chair in Geographical Information Science at the University of Leicester. Lex's interests span many different application areas including land cover/land use, demographics, public health, agriculture, bio-energy and accessibility, all of which require multi-disciplinary approaches. His research draws from geocomputation, mathematics, statistics and computer science, and he has extended techniques in numerous fields including operations research/location-allocation, graph theory and remote sensing to name some. He has published over 100 scholarly journal articles and is co-author with Chris Brunsdon of the 2015 book *An Introduction to R for Spatial Analysis and Mapping*.

On behalf of the editors-in-chief and the editorial team of Journal of Geographical Systems, our warmest congratulations to the 2021 awardees of the JGS Best Paper Award!

Editors' Choice Paper Volume 24(1)

The **JGS Editors' Choice Article** is one article from each issue that the editors recognize as providing an especially significant contribution to the field. The selected articles are announced through Twitter @JGeoSys and @Springernomics and listed on the JGS Editors' Choice Article website. The recognized papers will be made free access for a certain amount of time.

The **JGS Editors' Choice** of the current volume 24(1) is

The propagation effect of commuting to work in the spatial transmission of COVID-19

by **Timo Mitze** and **Reinhold Kosfeld** (<https://doi.org/10.1007/s10109-021-00349-3>; read-only link <https://rdcu.be/cFIUi>)

This interesting and impressive paper uses spatial panel error correction models to explain the rise and spread of Covid-19 in Germany during the first pandemic wave in spring 2020. The objective of the study is twofold: first, to identify the significance of commuters-to-work patterns between NUTS-3 regions as an explicit channel for spatial disease transmission before containment measures were introduced in mid-March. The second objective is to assess the effects of containment measures on the strength of interregional disease transmission through job commuting. Modelling combines elements from a theoretically grounded long-run specification of epidemic specification between NUTS-3 regions and a flexible short-run approach that accounts for nonlinear dynamics of new Covid-19 cases. Data and code are made available for reproducibility.

On behalf of the editors-in-chief and the editorial team of Journal of Geographical Systems, our warmest congratulations to the awardees of the JGS Editors' Choice Award!

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