Editorial Founding Issue

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Abstract

The Journal of Data Science, Statistics, and Visualisation (JDSSV) is an electronic journal which welcomes contributions to data science, statistics, and visualisation, and in particular, those aspects which link and integrate these subject areas. Articles can cover topics such as machine learning and statistical learning, the visualisation and verbalisation of data, visual analytics, big data infrastructures and analytics, interactive learning, and advanced computing. Articles that discuss two or more research areas of the journal are favoured. Scientific contributions should be of a high standard. Articles should be oriented towards a wide scientific audience of statisticians, data scientists, computer scientists, data analysts, etc.

The journal welcomes original contributions that are not being considered for publication elsewhere and contain a high level of novelty. Articles with a thorough but concise review of a certain topic with the potential to provide new insights are also welcome. Manuscripts submitted to the journal generally are accompanied by supplementary material containing software code, data, technical derivations or detailed explanations, additional examples, etc. All submitted material will be reviewed by the assigned associate editor and reviewers of the manuscript.

Keywords: JDSSV, IASC, ISI, data science, statistics, visualisation.

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1. Why a New Journal?

Data have become an important asset in today's world. Nowadays, huge amounts of data become available with high speed, urging statistics and data analysis to shift their

focus from analyzing small sample data in moderate dimensions to the analysis of large, high dimensional data. The need to extract meaningful information from such *big data* has a profound impact on statistics and computer science, and has led to the emergence of the field of data science.

One of the goals of the International Association for Statistical Computing (IASC) is to advance research and methods at the crossroads of computational statistics, data science, and visualisation. New developments in each of these areas deserve a broad audience to foster cross-disciplinary exchange. The present journal is established to achieve this. In our role as editors, it is our intention to make this journal a platform for high quality scientific articles at the crossroads of these disciplines. We believe that our new journal can fill the gap that exists between the separate fields.

To increase the impact of the journal, the IASC decided to make this electronic journal open access for readers and without publication costs for the authors. We follow the principles of open science and strongly promote reproducible research. In particular, all submissions need to contain accompanying data and software code that is necessary to reproduce the empirical results in the manuscript. The editors can lean on the expertise of the Advisory Board that currently consists of Jan de Leeuw (UCLA, USA), David Hand (Imperial College, UK), Trevor Hastie (Stanford University, USA), and Peter Rousseeuw (KU Leuven, Belgium). These are exciting times for anyone involved in modern data analysis. The field of data science is evolving rapidly, receives a lot of attention from society, and there is a huge demand for data scientists in research and industry. We hope and trust that this new journal will become an important platform to disseminate high quality contributions in data science, statistics, and visualisation.

2. What is the Journal About?

The Journal of Data Science, Statistics, and Visualisation (JDSSV) is an electronic journal which welcomes contributions to data science, statistics, and visualisation, and in particular, those aspects which link and integrate these subject areas. Articles can cover topics such as machine learning and statistical learning, the visualisation and verbalisation of data, visual analytics, big data infrastructures and analytics, interactive learning, and advanced computing. Articles that discuss two or more research areas of the journal are favoured. Scientific contributions should be of a high standard. Articles should be oriented towards a wide scientific audience of statisticians, data scientists, computer scientists, data analysts, etc.

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Manuscripts may have a substantial theoretical component, but it is expected that all manuscripts contain at least one application on empirical or simulated data. The journal emphasizes the reproducibility of the results presented in all articles. Therefore,

all data and software code that is necessary to reproduce the empirical results in the manuscript should be made available in a user friendly manner. If the empirical data cannot be released for reasons of confidentiality or otherwise, then a generated dataset with comparable properties should be provided. We highly recommend to provide code that can be used in open-source software such as R (R Core Team 2021), Python (Python Software Foundation 2021), Julia (Bezanzon et al. 2012), Octave (Eaton et al. 2017), etc. To make code widely accessible, we advise making it available in a repository such as `https://zenodo.org` where it will receive a permanent Digital Object Identifier (DOI) which can be included in the manuscript.

All manuscripts should be submitted online at `https://jdssv.org`. Manuscripts should follow the JDSSV guidelines. LaTeX, knitr (Xie 2021) and rmarkdown (Allaire et al. 2021) templates are provided at `https://jdssv.org/index.php/jdssv/about/submissions#authorGuidelines`. JDSSV uses a single blind review process. Upon submission of their manuscript, authors have the opportunity to provide a short list of suggested reviewers as well as a few names of researchers that preferably should not be contacted for reviewing the manuscript. All submitted manuscripts will undergo automatic checking for plagiarism and will not be considered for further review in case of plagiarism. The manuscript will be assigned to one of the editors who will make an initial screening to check the quality of the submitted work, possibly with the help of an associate editor. After positive screening, the manuscript will be assigned to an associate editor who will seek the opinion of at least two reviewers. Reviewers are asked to send their report within one month. Associate editors should typically make their recommendation one week after reception of the review reports. The initial review process should normally not take more than three months. All communication between the authors and the journal will be administered by the journal editors.

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