Editorial note

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The Journal of Spatial Econometrics was born under the increasing demand in this scientific area and with the impulse given by the Spatial Econometrics Association.

Jean H. P. Paelinck, who is well known for having coined the term *Spatial Econometrics*, sent us a note where he states:

Spacetime economics is indeed characterized by great complexity. Interpreting such complex patterns starts with theoretical spatial economics and should flow over into spatial econometrics, if we want our theories to confront the facts, possibly to be contradicted, at times to be relegated to the waiting room of theories pending their ever uncertain status.

This new journal will certainly contribute to unveiling many of the obstacles still to be transgressed in all the sub-areas of our discipline; new hurdles will invite to develop appropriate technical solutions, owing their specificity to the fact that joint publications create a community of topics: problems, solutions, revisions, all new discussions to be announced here with the appropriate scientific caution.

With these words in mind indicating the path to follow, and with the encouragement given by the father of the discipline, we started the activity of the new Journal towards the end of 2019. One year has now passed since its birth and we are happy to fulfill the pleasant duty to celebrate this event with this first editorial note.

2020 was an incredibly difficult year that will be remembered for the dramatic diffusion of the Covid-19 pandemic all around the world which affected in an unprecedented way all human activities including scientific research.

Indeed, scientific research has always been fostered by interaction among scholars at workshops and conferences where lively discussion promotes research progress and rapidly diffuses new ideas. In the year 2020 cancellation of scientific conferences due to the pandemic health emergency has required scholars to quickly adopt new approaches for interaction.

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In particular, the World Meeting of the Spatial Econometrics Association, held annually since 2006, has been platform for presentation of new developments by a large number of scholars which have been published as papers special issues hosted by various international journals prior the foundation of the *Journal of Spatial Econometrics*.

Due to the Coronavirus pandemic the Spatial Econometrics Association was forced to cancel our yearly conference originally planned for Jönköping in June 2020. The 2021 annual conference of the Association will take place in Tokyo as an online-only meeting in May 2021.

Despite this difficult period the *Journal of Spatial Econometrics* started its adventure with 5 papers submitted in the last part of year 2019 and 26 in 2020. All submissions were subjected to external reviews with 5 manuscripts accepted for publication in the first issue that appeared in December 2020. As a result of the significant disruption caused by the COVID-19 pandemic many researchers experienced problems meeting timelines associated with the peer review process. Nevertheless, the reviewing process in the first year was incredibly efficient thanks to the great job done by all Associate Editors and by many reviewers whose contribution we are glad to acknowledge here.

Indeed, reviewers on average took only 32 days to return a first review report with only 59 days from submission to a first decision and an average of 175 days from submission to final acceptance.

The journal had 2464 downloads in its first year of life demonstrating a high level of interest in this new project. This process was also encouraged by the decision of the Publisher Springer-Verlag to allow all published papers in the journal to be freely accessible during 2020 and throughout the year 2021.

As already indicated, 5 papers were published in Volume 1, issue 1 during December 2020. The published papers cover a wide variety of hot topics extremely interesting which lay at the frontier of spatial econometric research both from a methodological and an applied perspective.

The first paper published is entitled “GMM identification and estimation of peer effects in a system of simultaneous equations” by Xiaodong Liu which appeared February 3, 2020 and has been accessed 828 times as of March 2021. This paper was also the most read with 775 downloads in the same period. The paper deals with the identification and estimation of network models with agents interacting in multiple activities and shows that, by combining linear and quadratic moment conditions a general GMM framework can be implemented that improves the asymptotic efficiency of the existing estimators.

The second published paper is “Asymptotic properties of a spatial autoregressive stochastic frontier model” written by Fei Jin and Lung-fei Lee, which was published June 26, 2020 and has been accessed 499 times. The paper establishes the asymptotic properties of a spatial autoregressive stochastic frontier model making use of the asymptotic theory for nonlinear spatial near-epoch dependence processes. It proves the consistency and asymptotic distribution of the maximum likelihood estimators of the model’s parameters under regularity conditions and derives the asymptotic distributions of the associated score and likelihood ratio test statistics.

The third paper is the product of joint research by Anil K. Bera, Osman Doğan and Monalisa Sen and is entitled “Specification tests for spatial panel data models”. It was published July 30, 2020 and was accessed 808 times. It concentrates on the specification of spatial models proposing the use of a procedure (based on the adjusted Rao’s score test) which can deal simultaneously with various forms of miss-specifications including random effect, serial correlation, spatial lag and spatial error.

Paper number 4 in the first issue is “Network dependence in multi-indexed data on international trade flows” written by Manfred M. Fischer and James P. LeSage which appeared October 23, 2020 accessed 483 times. It deals with multidimensional fixed effects models and questions whether past approaches to controlling for unobserved heterogeneity eliminates the presence of cross-sectional dependence due to network interactions. The paper proposes a panel gravity model that produces a Monte Carlo integration estimate of the Bayesian log marginal likelihood determined during computationally efficient Markov Chain Monte Carlo estimation.

Finally, paper number 5 was written by Federica Cappelli, Caterina Conigliani and Giorgia Sforza on “Do spatial interactions fuel the climate-conflict vicious cycle? The case of the African continent” and it was published on November 17, 2020 and has been accessed 653 times. The paper analyses the relationships between violent conflicts, weather-related variables and socio-economic conditions in a spatial context making use of a dynamic spatial panel Durbin model. It concludes with useful policy recommendations for reducing vulnerability of local communities to climate change integrated with peacekeeping.

Despite the difficulties encountered during this first year of life we look optimistically towards a future with wide diffusion of the Covid19 vaccines leading to a worldwide return to previously normal activities including those pertaining to scientific research. With the aim of making a personal contribution to the fight against Coronavirus, we have launched a Call for Papers for a Special Article Collection to be published on the theme “Spatial econometric contributions to Covid19 pandemic modelling, forecasting and control.” Indeed, we believe that spatial econometrics can contribute significantly to understanding paths of transmission of the virus by modelling the spatial and networks interaction of individuals across both space and time. It can also contribute to providing more realistic models that produce space–time forecasts of evolution of the pandemic. Finally, it can contribute at various levels in assisting health policies at a sub-national level, helping to evaluate the effectiveness of lockdown measures, rationalizing the geographical distribution of health care interventions, therapies and vaccines, and provide information for investment in optimal health care infrastructure, as well as numerous other issues. We invite people working in these areas to submit their papers in this crucial area of research. Papers will be published online immediately after final acceptance and we will accept submissions until the end of the year 2021.

Another Call for Papers for a Special Article Collection on the theme “Computational issues and software for spatial econometrics” will focus on estimation of spatial econometric models involving large data sets involving parallel, distributed, or cloud-based computation approaches. In addition, there are

computational issues that arise for smaller problems where dependence structures produce multivariate distributions that are difficult to sample from when using simulation-based or Markov Chain Monte Carlo-based estimation methods. Because of the relative scarcity of published work in spatial econometrics on these and similar topics, we believe that this special issue will encourage contributions on these important concerns that might have seemed too ‘technical’ for general domain journals. We cordially invite researchers working in these areas and others to submit manuscripts for this special issue. We also welcome submissions demonstrating the reproducibility of presented results, so that significant technical advances may propagate efficiently to applied spatial econometrics research. Again, papers will be published online immediately after final acceptance and we will accept submissions until the end of the year 2021.

Sadly, during 2020 the first year of our new journal, an Associate Editor, Professor Jesus Mur passed away. We turn our thoughts to him while publishing this Editorial Note of the First Issue of our journal. To him it is also dedicated an obituary written by his friend and colleague Fernando Ant López Hernández.

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