

EDITORIAL

# GeoComputation 2019 special feature

It is a pleasure to present this special edition of the Journal of Spatial Information Science featuring selected papers developed from the proceedings of the GeoComputation 2019 conference, which ran in Queenstown, in the Southern Alps of New Zealand, from 18<sup>th</sup> to 21<sup>st</sup> September 2019.<sup>1</sup> A total of 73 papers were presented during the event. This was the 15th installment of the GeoComputation conference series, and was jointly organised by the University of Otago, University of Auckland, University of Canterbury, and Victoria University Wellington. It marked the return of the conference series to New Zealand after the 2nd conference in Dunedin in 1997.

The GeoComputation conference series started in 1996, under the leadership of Prof. Stan Openshaw and colleagues at the University of Leeds. Since 2001 it has run every other year, to alternate with the GIScience conference series. GeoComputation 2019, like the previous GeoComputation conferences, attracted researchers from around the world—North America, Europe, Asia as well as from Australasia—presenting research of impressive breadth, embodying the “art and science of solving complex spatial problems with computers”.<sup>2</sup> It truly embodied the aims of the conference series in other ways too, featuring state-of-the-art work at the convergence of multiple disciplines, from experienced to early-career researchers, including opportunities for presenting graduate student findings.

The full proceedings of the 2019 conference can be found online.<sup>3</sup> There you will find extended abstracts and short papers on many and varied topics, including AI, machine learning, spatial data mining, computational movement analysis, cyber GIS, open geospatial, VGI, environmental modelling, remote sensing, surfaces, hydrology, qualitative spatial reasoning, geospatial text processing, urban and social spatial analysis, geosimulation, agents, geostatistics, uncertainty, and a themed session on novel spatiotemporal paradigms. As always with this conference series, it was wonderful to see the skilled use of advanced statistical, computational, and machine learning methods used to solve challenging and real geographical problems.

For many of us involved, this event was our last in-person conference, prior to the COVID-19 outbreak that forced the cancellation of so many conferences, and the adoption of on-line delivery for others. It remains to be seen whether this disruption will become a permanent state of affairs for us, given the climate crisis we must now face. If this turns out

<sup>1</sup><https://www.otago.ac.nz/geocomputation/index.html>

<sup>2</sup><http://www.geocomputation.org/>

<sup>3</sup><https://auckland.figshare.com/GeoComputation2019>

to be the case, well at least our last event was stimulating, fun, and surrounded by some of the best scenery to be found anywhere on the planet.

This Special Feature section showcases three full-length papers that have been developed and extended from the conference proceedings and fully peer-reviewed by JoSIS. The papers cover interesting theoretical and practical ground, including (i) the study of dissimilarity and its role in determining segregation by Michael Dorman, Tal Svoray, and Itai Kloog [2], (ii) the relationship between the road network and the wayfinding of pedestrians by Debjit Bhowmick, Stephan Winter, Mark Stevenson, and Peter Vortisch [1], and (iii) the use of social media posts to monitor the service quality of public transport by Mohammad Masoud Rahimi, Elham Naghizade, Mark Stevenson, and Stephan Winter [3].

Antoni Moore  
*University of Otago, New Zealand*

Mark Gahegan  
*University of Auckland, New Zealand*

## References

- [1] BHOWMICK, D., WINTER, S., STEVENSON, M., , AND VORTISCH, P. The impact of urban road network morphology on pedestrian wayfinding behavior. *Journal of Spatial Information Science 2020*, 21 (2020). doi:10.5311/JOSIS.2020.21.601.
- [2] DORMAN, M., SVORAY, T., AND KLOOG, I. How does socio-economic and demographic dissimilarity determine physical and virtual segregation? *Journal of Spatial Information Science 2020*, 21 (2020). doi:10.5311/JOSIS.2020.21.587.
- [3] RAHIMI, M. M., NAGHIZADE, E., STEVENSON, M., , AND WINTER, S. Service quality monitoring in confined spaces through mining Twitter data. *Journal of Spatial Information Science 2020*, 21 (2020). doi:10.5311/JOSIS.2020.21.603.