The SIGSPATIAL Special

The SIGSPATIAL Special is the newsletter of the Association for Computing Machinery (ACM) Special Interest Group on Spatial Information (SIGSPATIAL).

ACM SIGSPATIAL addresses issues related to the acquisition, management, and processing of spatially-related information with a focus on algorithmic, geometric, and visual considerations. The scope includes, but is not limited to, geographic information systems.

Current Elected ACM SIGSPATIAL officers are:

- Chair, Shawn Newsam, University of California, Merced, USA
- Past Chair, Cyrus Shahabi, University of Southern California, USA
- Vice-Chair, Egemen Tanin, University of Melbourne, Australia
- Secretary, John Krumm, Microsoft Research, USA
- Treasurer, Maria Luisa Damiani, University of Milan, Italy

Current Appointed ACM SIGSPATIAL officers are:

- Newsletter Editor, Martin Werner, Technical University of Munich, Germany
- Webmaster, Xueqing Deng, University of California, Merced, USA

For more details and membership information for ACM SIGSPATIAL as well as for accessing the newsletters please visit [http://www.sigspatial.org](http://www.sigspatial.org).

The SIGSPATIAL Special serves the community by publishing short contributions such as SIGSPATIAL conferences’ highlights, calls and announcements for conferences and journals that are of interest to the community, as well as short technical notes on current topics. The newsletter has three issues every year, i.e., March, July, and November. For more detailed information regarding the newsletter or suggestions please contact the editor via email at martin.werner@tum.de.

Notice to contributing authors to The SIGSPATIAL Special: By submitting your article for distribution in this publication, you hereby grant to ACM the following non-exclusive, perpetual, worldwide rights:

- to publish in print on condition of acceptance by the editor,
- to digitize and post your article in the electronic version of this publication,
- to include the article in the ACM Digital Library,
- to allow users to copy and distribute the article for noncommercial, educational or research purposes.

However, as a contributing author, you retain copyright to your article and ACM will make every effort to refer requests for commercial use directly to you.

Notice to the readers: Opinions expressed in articles and letters are those of the author(s) and do not necessarily express the opinions of the ACM, SIGSPATIAL or the newsletter.

The SIGSPATIAL Special (ISSN 1946-7729) Volume 12, Number 3, November 2020.
# Table of Contents

Message from the Editor.................................................................................................................. 1  
Andreas Züfle, Martin Werner

**Section 1: ACM SIGSPATIAL 2020 Conference Report**

The 28th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL 2020)  
Virtual, Online, USA, November 3-6, 2020 ........................................................................ 3  
Chang-Tien Lu, Fusheng Wang, Goce Trajcevski, Yan Huang, Shawn Newsam, Li Xiong

**Section 2: ACM SIGSPATIAL 2020 Workshop Reports**

4th ACM SIGSPATIAL Workshop on Location-Based Recommendations, Geosocial Networks, and Geoadvertising (LocalRec 2020) ................................................................. 7  
Panagiotis Bouros, Tamraparni Dasu, Yaron Kanza, Matthias Renz, Dimitris Sacharidis

3rd ACM SIGSPATIAL International Workshop on GeoSpatial Simulation (GeoSim 2020) ......................................................................................................................... 11  
Joon-Seok Kim, Taylor Anderson, Ashwin Shashidharan, Andreas Züfle

9th ACM SIGSPATIAL International Workshop on Analytics for Big Geospatial Data (BIGSPATIAL 2020) .............................................................................................. 15  
Ashwin Shashidharan, Varun Chandola, Ranga Raju Vatsavai

4th ACM SIGSPATIAL Workshop on Geospatial Humanities (GeoHumanities 2020) ......................... 17  
Ludovic Moncla, Patricia Murrieta-Flores, Carmen Brando

2nd ACM SIGSPATIAL International Workshop on Geospatial Data Access and Processing APIs (SpatialAPI 2020)................................................................. 20  
Ahmed Eldawy, Gobe Hobona

3rd ACM SIGSPATIAL Workshop on Advances in Resilient and Intelligent Cities (ARIC 2020) .................................................................................................................. 23  
Bandana Kar, Xinyue Ye, Shima Mohebbi, Guangtao Fu

13th International Workshop on Computational Transportation Science (IWCTS 2020) .................. 26  
Kuldeep Kurte, Anne Berres, Srinath Ravulaparthi, Jibonananda Sanyal, Gautam Thakur
Section 3: ACM SIGSPATIAL 2020 Students Research Competition: Grand Finalists

Efficient Downscaling of Satellite Oceanographic Data With Convolutional Neural Networks ................................................................. 47
Nikita Saxena