The Eighth ACM SIGSPATIAL International Workshop on Analysis for Big Spatial Data Chicago, IL, USA - November 5, 2019

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Since the "Big Data Research and Development Initiative" launched by the White House in 2012, big data has received great attention from industry and federal agencies alike emerging as an important area of research for scientists worldwide. Within the realm of big data, spatial and spatiotemporal data continues to be among the fastest-growing types of data. With advances in remote sensors, sensor networks, and the proliferation of location sensing devices in daily life activities and common business practices, the generation of disparate, dynamic, and geographically distributed spatiotemporal data has exploded in recent years. In addition, significant progress in the ground, air- and space-borne sensor technologies have led to unprecedented access to earth science data for scientists from different disciplines, interested in studying the complementary nature of different parameters. Today, analyzing this data poses a massive challenge to researchers.

The workshop series on Analytics for Big Geospatial Data (BIGSPATIAL), has become one of the key meeting points for researchers in the area of big geospatial data analytics, since 2012. Held every year, in conjunction with the annual ACM SIGSPATIAL conference, this meeting has found strong support from researchers in government, academia, and industry. The workshop provides a platform for researchers and practitioners engaged in addressing the big data aspect of spatial and spatiotemporal data analytics to present and discuss their ideas.

Building on the success of the previous editions to bring together researchers from academia, government and industry, who have been working in the area of spatial analytics with an eye towards massive data sizes, the 8^{th} workshop on Analytics for Big Geospatial Data (BIGSPATIAL 2019) was held in conjunction with the 27^{th} ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL 2019) on November 5^{th}, 2019. The main motivation of the workshop as has been in previous years was to serve as a forum to exchange ideas, present recent research results and to facilitate collaboration and dialog between academia, government, and industrial stakeholders.

This year we received 8 technical submissions out of which 4 were selected for full presentations at the workshop. The technical program also consisted of a keynote talk by Dr. Dalton D. Lunga from Oak Ridge National Laboratory (ORNL), who is a lead scientist in machine learning-driven geospatial image analytics and a member of the ORNL AI Initiative. His talk titled, "Creating Global Scale Data Layers from Trillion Pixels using Machine Learning: A Journey of Challenges and Opportunities" provided an excellent start to the workshop by laying out the challenges and opportunities for big data researchers from the consideration of trillion pixel capable machine learning systems. The workshop was well-attended with 15 registered participants. Besides the technical and invited talks, two awards were presented at this year's workshop. This included the best paper award and the best presentation award which was given to Alberto Belussi, Damiano Carra, Sara Migliorini and Mauro Negri for their paper on "Efficient MapReduce Computation of Topological Relations for Big Geometries".

We would like to thank all the speakers, authors and attendees who participated in the workshop. We express our sincere gratitude to Dr. Dalton D. Lunga for his insightful keynote talk. Also, a special note of thanks to the program committee members, whose reviewing efforts ensured in selecting a competitive and strong technical program. We hope the BIGSPATIAL workshop series will continue to provide a leading international forum for researchers, developers, and practitioners in the field of big geospatial data analytics to identify current and future areas of research.