

The Sixth ACM SIGSPATIAL International Workshop on Analysis for Big Spatial Data Redondo Beach, CA, USA - November 7, 2017

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Big data is emerging as an important area of research for data researchers and scientists. This area has also seen significant interest from the industry and federal agencies alike, as evidenced by the recent White House initiative on “Big data research and development”. Within the realm of big data, spatial and spatio-temporal data is one of 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 ground, air- and space-borne sensor technologies has led to an 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.

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 6th workshop on Analytics for Big Geospatial Data (BIGSPATIAL 2017) was held in conjunction with the 25th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACM SIGSPATIAL 2017) on November 7th, 2017. The main motivation for this workshop stems from the increasing need for a forum to exchange ideas and recent research results, and to facilitate collaboration and dialog between academia, government, and industrial stakeholders. We hope that this workshop provides a platform for researchers and practitioners engaged in addressing the big data aspect of spatial and spatio-temporal data analytics to present and discuss their ideas.

This year we received 9 technical submissions out of which 6 were selected for full presentations at the workshop. The technical program also consisted of three keynote talks from well-known experts from academia and government. The keynote speakers included Dr. Budhendra Bhaduri from Oak Ridge National Laboratory, Prof. Yan Huang from University of North Texas, and Prof. Goce Trajcevski from Iowa State University. The BIGSPATIAL workshop series will continue to provide a leading international forum for researchers, developers, and practitioners in the field of data analytics for big geospatial data to identify current and future areas of research.

The workshop was well-attended with 25 registered participants. Besides the technical and invited talks, three awards were given. This included the best paper award for the 2017 workshop which was given to Michael Beckemeyer and Jan Vahrenhold, for their paper on “Bulk-Loading an Index for Temporally Overlaying Spatio-

Textual Trajectories” and two *BigSpatial Test-of-Time Awards*, that were given to:

1. Ranga Raju Vatsavai, Auroop Ganguly, Varun Chandola, Anthony Stefanidis, Scott Klasky, Shashi Shekhar, Budhendra Bhaduri, and Arie Croitoru for their 2012 paper on “Spatiotemporal Data Mining in the Era of Big Spatial Data: Algorithms and Applications.”
2. Simin You, Jianting Zhang, Le Gruenwald for their 2013 paper on “Parallel spatial query processing on GPUs using R-trees.”

We would like to thank the authors of all submitted papers. Their innovation and creativity has resulted in a strong technical program. We are highly indebted to the program committee members, whose reviewing efforts ensured in selecting a competitive and strong technical program. We would like to express our sincere gratitude to the invited speakers.