IWGS 2015 Workshop Report
The 6th ACM SIGSPATIAL International Workshop on GeoStreaming
Seattle, WA, USA - November 3, 2015

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The ACM SIGSPATIAL International Workshop on Geostreaming (IWGS) was held for the sixth time in conjunction with the 23rd ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems (ACMGIS 2015). The workshop has been a successful event that attracted participants from both academia and industry. The workshop addressed topics that are at the intersection of data streaming and geospatial systems. The workshop fostered an environment where geospatial researchers can benefit from the advances in geosensing technologies and data streaming systems.

We are entering the era of "big data" thanks to the exponential growth and availability of structured and unstructured data, among which a large amount are real-time streaming data emitted from sensors, imagery and mobile devices. In addition to the temporal nature of stream data, various sources provide stream data that has geographical locations and/or spatial extents, such as geotagging twitter streams, mobile GPS location streams, spatial temporal image streams, and so on. On one hand, this amount of streamed data has been a major propeller to advance the state of the art in geographic information systems. On the other hand, the ability to process, mine, and analyze that massive amount of data in a timely manner prevented researchers from making full use of the incoming stream data. The geostreaming term refers to the ongoing effort in academia and industry to process, mine and analyze stream data with geographic and spatial information.

This workshop addresses the research communities in both stream processing and geographic information systems. It brings together experts in the field from academia, industry and research labs to discuss the lessons they have learned over the years, to demonstrate what they have achieved so far, and to plan for the future of geostreaming.

The workshop featured a keynote by John Krumm from Microsoft Research, providing a review of research toward addressing the question "what we can learn about people from the places they go". This keynote, which was very well attended and engaging, examined some of the on-going research on the aforementioned topic, including fundamental models of human mobility; how peoples movements throughout the day give clues about which types of places they are visiting, such as their home, work, and school; how movements also give insights into how far people are willing to travel to different types of places and the routes they prefer. how to go from recorded location data to surprisingly accurate predictions of where people will travel in the future, both over the next several minutes as well as the next several weeks; and finally how what we learn from mobility patterns can be applied to automated personal assistants, local search, and routing.

The call for paper resulted in 15 submissions of research papers. A program committee of 7 members reviewed the submissions and as a result 11 highest quality papers were accepted. On average, Over 22 attendees

were present at every session of the workshop. The topics presented in the workshop include but are not limited to: Geostream Query Processing, Geostream Theory and Applications in Tranportation and social media, Streaming Trajectories and Moving Regions and Geostreaming Systems.