

# Spatiotemporal Analysis for Travel Patterns in Alaska

Presented by Dr. Caixia Wang



**Abstract:** Using communication devices to interact social media platforms has become increasingly popular in recent years. This has generated massive geolocated data along with their time, publicly available and useful for many location-based decision makings. These datasets are typically sparse and irregular in space as well as in time, posing challenges in their study to uncover useful information. On the other hand, they can be new data source with low price, high convenience and offering unprecedented information. This work is to

analyze such volunteered geographic information (VGI) using Flickr data as an example. The proposed approach focuses on two aspects: 1) significant “hotspots” (clusters) in relation to the point of interests (POIs); and 2) spatial and temporal characteristics of travel routes by different tourists. Different geo-visualization techniques are also introduced to effectively communicate the findings from this work.

**Biography:** Dr. Caixia Wang worked as Surveying Engineer in China after she received her Bachelor of Engineering from Wuhan University in 1996. In 2002, she started to pursue her graduate studies at Orono, Maine, and earned her M.S. in Spatial Information Science and Engineering from the University of Maine in 2004, PhD. in Earth Systems and Geoinformation Science from George Mason University in 2010. Before joining UAA, Dr. Wang was visiting assistant professor at Missouri State University and postdoc research fellow at George Mason University. In 2013, Dr. Wang became a faculty member at UAA and has since taught surveying and Geographic Information Systems (GIS) courses, including spatial analysis and spatial data management. She has conducted research projects on National Hydrography Dataset (NHD) updates on Alaska Hydrographic network, Alaska soil feature extraction, shoreline change analysis at Endicott Lagoon, and Unmanned Aerial Vehicles (UAVs) - based remote sensing.

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