

# Sixth International Workshop on Spatial and Spatiotemporal Data Mining

## Preface

With advances in remote sensors, sensor networks, and proliferation of location sensing devices into common walks of lives and businesses, the generation of disparate, dynamic, and geographically distributed spatiotemporal data has exploded in recent years. Knowledge extracted from spatial and spatiotemporal data plays a critical role in our daily lives, whether it is to understand the human implications of global environmental changes, responding to natural disasters, or simply finding alternate routes in case of an emergency. However, unprecedented data growth is leading into a data-rich but information-poor environment as the rate at which the geospatial data being generated clearly exceeds our ability to organize and analyze it to extract useful patterns that are critical to the understanding of dynamically changing world in a timely manner. It is therefore, imperative that efficient and effective data mining techniques are needed for extracting useful information from these large heterogeneous and multi-modal datasets. However, traditional data mining techniques are ineffective, as they don't incorporate idiosyncrasies of spatial domain, such as, spatial autocorrelation, spatial context, and spatial constraints. Recognizing the need for an international forum to disseminate research results and discuss the needs of the spatial and spatiotemporal data mining community, the SSTDM series of workshops were started in 2006 as satellite event with IEEE ICDM.

Initial workshops (SSTDM/ICDM-06, SSTDM/ICDM-07, STDM/ICDE-07) have mostly focused on algorithmic aspects of SSTDM on vector data types. Starting with ICDM- 08, SSTDM workshop was combined with GeoInformatics (DM4GeoInformatics) workshop, which brought together vector and raster datasets, and theory and applications under a single platform. Popularity of SSTDM workshop has steadily increased over the years owing to several factors: recognition and broadening of the field, increasing applications, especially in geo-intelligence, climate, and earth sciences, and finally increasing quality and quantity of submissions and participants. Moreover, SSTDM remained highly appealing to the ICDM authors, as more and more authors are selecting SSTDM as their preferred workshop. The workshop is also found to be highly useful to participants due to the quality and relevance of invited speakers. This year we had received 21 submissions of which 7 full papers and 4 short were selected based on minimum of three PC reviews. In addition to the presentation of these technical papers, workshop will also feature a keynote talk. SSTDM workshop will continue to provide a leading international forum for researchers, developers, and practitioners in the field of geoinformatics to identify current research foci, vital areas of need, and critical points of synergy.

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