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# Committees

## International Steering Committee

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<b>Michael Goodchild</b>	University of California, Santa Barbara, USA

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<b>Ruixin Yang</b>	George Mason University, USA
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<b>Genong Yu</b>	George Mason University, USA
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**Ling Bian** University at Buffalo, Director of NCGIA-Buffalo, USA

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**Li Yin** University at Buffalo, USA

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**Shixiong Hu** East Stroudsburg University of Pennsylvania, USA; 2015 CPGIS President

**Hui Lin** Chinese University of Hong Kong, China; 1992 & 1997 CPGIS President

**Penghang Liu** University at Buffalo, USA

**Yongmei Lu** Texas State University, USA; 2008 CPGIS President

**Laura Mangan** University at Buffalo, Office of the Associate Vice President for Research Advancement, USA

**David Mark** University at Buffalo, Former Director of NCGIA-Buffalo, USA

**Lite Shi** Wuhan University, China

**Pat Shyhalla** University at Buffalo, Associate Vice Provost for International Education, USA

**Xiang Ye** University at Buffalo, USA

**Zerui Zhang** University at Buffalo, USA

**Shiran Zhong** University at Buffalo, USA

### **Student Volunteers**

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**Mingming Jia** University at Buffalo, USA

**Xiangyu Jiang** University at Buffalo, USA

**Zhu Jin** University at Buffalo, USA

**Tong Li** University at Buffalo, USA

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**Yue Luo** University at Buffalo, USA

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Bin Li                 Central Michigan University, USA; 1995 CPGIS President  
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Shih-Lung Shaw       University of Tennessee, USA; CPGIS Founding Member  
Xun Shi                Dartmouth College, USA; 2010 CPGIS President  
Le Wang               University at Buffalo, USA; 2005 CPGIS President  
Yichun Xie            Eastern Michigan University, USA; CPGIS Founding Member  
Qiming Zhou          Hong Kong Baptist University, China; CPGIS Founding Member  
A-Xing Zhu            University of Wisconsin-Madison, USA; 2003 CPGIS President

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2009 CPGIS President  
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Zeqiang Chen         Wuhan University, China  
Anrong Dang          Tsinghua University, China  
Le Wang               University at Buffalo, USA; 2005 CPGIS President  
Peisheng Zhao        George Mason University, USA



# Program Overview

## Registration: Times and Locations

Day	Time	Location
August 1	12:00 – 19:00	Marriott Hotel
August 2	7:30 – 12:00	UB Center for Tomorrow
	14:00 – 17:00	Marriott Hotel
August 3	8:00 – 17:00	Marriott Hotel
August 4	8:00 – 12:00	Marriott Hotel

## Program Outline

### August 2, 2017

Morning events and lunch at UB Center for Tomorrow				
Time	Session	Name	Title	Chair
8:30-9:00	Opening Ceremony	Ling Bian	Director of NCGIA Buffalo; Local Organizing Committee	Yongmei Lu
		Hui Lin	CPGIS Founder and Inaugural President	
		Steven Dunnett	University at Buffalo, Vice Provost for International Education	
		Yuemin Ding	CPGIS Inaugural Vice President, CPGIS History Committee	
		Xinyue Ye	CPGIS President	
9:00-11:00	Keynote Speeches	Michael Goodchild (Member of the US National Academy of Sciences)	Rethinking the history of GIS	Hui Lin, (CPGIS Founder)
		Michael Batty (Fellow of The Royal Society, UK)	Geo-temporal analytics in the age of the smart city	
		Luc Anselin (Member of the US National Academy of Sciences)	The many faces of spatial clustering	
		Deren Li (Academician of the Chinese Academy of Sciences and the Chinese Academy of Engineering)	From earth observation satellite to earth observation brain	

11:00-11:10	Break			
11:10-12:00	Group Photo			
12:00-13:30	Lunch	Daniel Sui (Ohio State University and NSF, USA)	Does GIScience have its own replication crisis? Thoughts on making GIScience more robust and reliable	Le Wang

### Afternoon Sessions at Marriott Hotel

14:00-15:20	Paper Sessions 1-6			
15:20-15:30	Break			
15:30-16:50	Two Parallel Panel Sessions	Career Development Panel (Ballroom 1)	Panel Organizer: Weihe Guan Panelists: Jay Lee, Bin Li, Lin Liu, Shih-Lung Shaw, Daniel Sui, Guangyu Zhang	
		Health & GIS Panel (Ballroom 2)	Panel Organizer: Mei-Po Kwan Panelists: Ling Bian, Richardson Douglas, Jianya Gong, Yongmei Lu, Xun Shi, Li Yin	
	Paper Sessions 7-10			

### Evening Dinner and Tour at Niagara Falls (Dr. John Pan & Local Organizing Committee)

17:00	Board tour buses at Marriott hotel entrance, departure for Niagara Falls evening
17:40-18:40	Dinner at Chu's, a Niagara Falls restaurant
18:50	Boat ride on <i>Maid of the Mist</i> ; Niagara Falls night
20:30	IMAX Movie
21:00	Lighting display of Niagara Falls
22:00	Return to Marriott

## August 3, 2017

Morning Sessions at Marriott Hotel				
Time	Session	Name	Title	Chair
8:20-10:20	Keynote Speeches (Ballroom 4 & 5)	Anthony Yeh (Academician of the Chinese Academy of Sciences)	Navigation paths as polygons - polygonization method in automatic generation and updating of outdoor vehicle and indoor pedestrian navigation GIS	Xinyue Ye (CPGIS President)
		Huadong Guo (Academician of the Chinese Academy of Sciences)	Framework research of a big earth data platform for sustainable development	

		Jianya Gong (Academician of the Chinese Academy of Sciences, CPGIS President-Elect)	GISs development in China during recent 25 years	
		Jingming Chen (Fellow of the Royal Society of Canada)	Mapping leaf chlorophyll content: a new way to improve global carbon cycle estimation	
10:20-10:40	Break			
10:40-12:00	Two Parallel Panel Sessions	Supporting Women in GIS Panel (Ballroom 1)	Panel Organizer: Lan Mu Panelists: Weihe Guan, Mei-Po Kwan, Hui Lin, Yongmei Lu, Xun Shi, Fahui Wang, Xiaobai Yao	
		Smart City Panel (Ballroom 2)	Panel Organizers: Shih-Lung Shaw, Daniel Sui Panelists: Michael Batty, Deren Li, Anthony Yeh, Michael Goodchild	
Paper Sessions 11-14				
12:00-13:30	Lunch (Ballroom 4 & 5)	Liang Wu (President, Zondy Cyber)	Exploration and Innovation on Ecological Environment of Geospatial Information Service	Li Yin
		Qinge Du (Vice President, SuperMap)	SuperMap Introduction and Technology Development	

<b>Afternoon Paper Sessions at Marriott Hotel</b>				
14:00-15:40	Paper Sessions 15-21 (including Student Paper Competition Session I)			
15:40-16:00	Break			
16:00-17:20	Paper Sessions 22-28 (including Student Paper Competition Session II)			
<b>Dinner and CPGIS Night</b> (Local Organizing Committee: Le Wang & Li Yin)				
18:00-22:00	CPGIS Night			
18:30-18:45	Special Awards Presentation (by Hui Lin)			
18:45-19:00	Video address by Guanhua Xu (Academician of the Chinese Academy of Sciences)			
19:00-19:30	Keynote	Chuang Tao (Chairman, Z Ventures Group)	Spatial intelligence: A new wave to the geospatial industry and academia	

19:30-19:45	Photo Recognition Competition (Chair: Aijun Chen)
19:45-20:00	Special Remarks & Acknowledgement (Ling Bian)
20:00-20:15	Other Announcements Related to CPGIS Business/Achievements (Hui Lin)
20:15-21:30	Entertainment

## August 4, 2017

<b>Morning Sessions at Marriott Hotel</b>		
<b>Time</b>	<b>Session</b>	
9:00-10:40	Paper Sessions 29-34	
9:00-10:40	Special Session of CPGIS Presidents – Retrospect and Prospect (Ballroom 4&5)	
10:40-11:00	Break	
11:00-12:00	CPGIS BOD meeting	
12:00-13:45	Lunch & Award Ceremony	
12:45-13:15	CPGIS Awards (To be presented by Chuanrong Zhang, Award Committee)	CPGIS Life-Time Achievement Award: Anthony Yeh
		CPGIS Distinguished Scholar Award: Mei-Po Kwan
		CPGIS Education Excellence Award: Jay Lee and A-Xing Zhu
	Student Paper Competition Awards (To be presented by Xiang Chen, Student Paper Competition Committee)	
13:15-13:30	Presentation by the host of Geoinformatics 2018 (To be introduced by Wei Luo, Conference Site Selection Committee)	
13:30	Concluding Remarks (Ling Bian)	

# Schedule of Presentations

**Day 1: August 2, 2017**

**14:00 – 15:20**

## **Paper Session 1: Topic of China (I)**

**Chair: Weihe Guan**

**Room: Ballroom 3**

14:00 Kun Yang (Yunnan Normal University) An evaluation model for PM2.5 in China
14:20 Yiwei Deng (East China Normal University) A basin-based proximity analysis on the influences of mining in Henan Xiaoqinling Nature Reserve, China
14:40 Weihe Guan (Harvard University) Enabling spatiotemporal analysis and visualization of air pollution in China and India
15:00 Yanan Liu (Wuhan University) Monitoring of urban carbon sources and carbon sinks using national geography census data: A case study in Wuhan, China

## **Paper Session 2: Big GeoData (I)**

**Chair: Guiming Zhang**

**Room: Salon A**

14:00 Guiming Zhang (University of Wisconsin-Madison) GPU-accelerated adaptive kernel density estimation for point pattern analysis on spatial big data
14:20 Xin Yao (Peking University) Visualize and compare spatial interaction patterns
14:40 Yuanyuan Chen (Peking University) Detecting trajectory outliers based on Spark
15:00 Xiaokang Fu (Wuhan University) Inferring urban air quality based on social media

## **Paper Session 3: Spatial Analysis of Socio-economics (I)**

**Chair: Jay Lee**

**Room: Ballroom 2**

14:00 Hongchao Fan (Wuhan university) Spatial-temporal pattern analysis on journal paper submissions
14:20 May Yuan (University of Texas at Dallas) Trajectories of patterns in space and time: A case study of international trade from 1900-2009
14:40 Yuxia Wang (Peking University) Analyzing spatial-temporal inequality of human activities in China
15:00 Jay Lee (Kent State University) Towards spatiotemporal analytics: Integrating spatial and temporal data for analyzing geographic events

## **Paper Session 4: Land-use and Land-cover (I)**

**Chair: Anrong Dang**

**Room: Salon B**

14:00 Anrong Dang (Tsinghua University) Study on the geo-informatics supporting for the national spatial planning system formulation
14:20 Yongqin Chen (Chinese University of Hong Kong) Impacts of global warming on floods and water availability
14:40 Cuizhen Wang (University of South Carolina) Remote sensing of surface wetness dynamics in the October '15 South Carolina flood event
15:00 Lijuan Li (Chinese Academy of Sciences) Analysis of terrain characteristics on land use changes and the response of ecosystem service values in a plateau lake area

## **Paper Session 5: Urban Environment Analysis (I)**

**Chair: Yichun Xie**

**Room: Salon E**

14:00 Yichun Xie (Eastern Michigan University) Modeling long-term trend of vegetation change at local scale through time-series image analysis
14:20 Xue Yang (Wuhan University) Automatic change detection of lane-level road network based on GPS traces data
14:40 Ru Xu (Chinese University of Hong Kong) Detailed urban land use and land cover change analysis in a rapidly urbanized city
15:00 Chaogui Kang (Wuhan University) Spatially robust estimates of trajectory entropy from mobile phone data

## **Paper Session 6: Hazard Mapping and Risk Assessments (I)**

**Chair: Jinfei Wang**

**Room: Ballroom 1**

14:00 Zeqiang Chen (Wuhan University) An active service framework for flood monitoring based on sensor web services
14:20 Jinfei Wang (University of Western Ontario) Urban flooding risk mapping using hydraulic and GIS models
14:40 Xiaojuan Li (Capital Normal University) An analysis and simulation model for urban flash flood based on real-time crowdsourcing data
15:00 Tianxing Yu (Wuhan University) The multi-granularity representation for spatiotemporal position of geographical object based on geographical cognition

**Day 1: August 2, 2017**  
**15:30 – 16:50**

**Paper Session 7: Topic of China (II)**

**Chair: Yuejin Deng**

**Room: Ballroom 3**

15:30 Fengrui Chen (Henan University) A spatial calibration method for satellite-derived precipitation estimates over China
15:50 Shiyao Zhai (Henan University) Research on the spatial and temporal variations of drought in the Bei-bu wheat districts of China between 1960 and 2012
16:10 Yuejin Deng (Wuhan University) Practice of spatial planning unification: A case study of Hainan Province, China
16:30 Di Cai (Guangzhou University) The spatial spillover effects of services clusters in central urban area - take the case of Tianhe District of Guangzhou, China

**Paper Session 8: Big GeoData (II)**

**Chair: Yihong Yuan**

**Room: Salon A**

15:30 Jing Cheng (Peking University) The spatio-temporal autocorrelation analysis of Beijing's taxi trajectory data
15:50 Yihong Yuan (Texas State University) Investigating social media landscapes from twitter: A case study of Austin, Texas
16:10 Alina Ristea (University of Salzburg) Relationships between crime and Twitter activity around stadiums
16:30 Yingjie Hu (University of Tennessee, Knoxville) Building local place gazetteers using geotagged web data

**Paper Session 9: Land-use and Land-cover (II)**

**Chair: Tao Tang**

**Room: Salon B**

15:30 Yuling Peng (Wuhan Institute of Technology) Research on multi-scale optimal allocation of land resources in Savan District, Laos
15:50 Weifeng Li (University of Hong Kong) Remote sensing of fine particulate matter pollution in the Beijing-Tianjin-Hebei region: a comparison between VIIRS and MODIS
16:10 Rumin Wang (Wuhan Land Resources and Planning Information Center) Research on optimal allocation of law enforcement monitoring based on the spatio-temporal evolution of land use – a case study in Jiangxia District of Wuhan City

16:30 Tao Tang (Buffalo State College, State University of New York)  
Spatial analysis of time scale sensitive geographic events and patterns using UAVs

## **Paper Session 10: Urban Environment Analysis (II)**

**Chair: Song Gao**

**Room: Salon E**

15:30 Liang Mao (University of Florida)  
Downscaling rural-urban measures for understanding health inequalities in late-stage cancer diagnosis

15:50 Song Gao (University of California)  
Searching for semantic regions based on topic models of points of interest distributions on location-based social networks

16:10 Jun Xu (Chinese Academy of Sciences)  
Sensing the urban space with crowdsourced positioning data

16:30 Hongsheng Zhang (Chinese University of Hong Kong)  
Biomass estimation of mangrove forests using satellite data in Hong Kong



**Day 2: August 3, 2017**  
**10:40 – 12:00**

**Paper Session 11: Topic of China (III)**

**Chair: Xuehua Liu**

**Room: Ballroom 3**

10:40 Xuehua Liu (Tsinghua University) Application of GIS spatial analysis on predicting the bamboo flowering for giant pandas in the Qinling and Minshan Mountains, China
11:00 Chen Zeng (Huazhong Agricultural University) The integrated assessment on urban community vitality using big data: A preliminary analysis in Wuhan
11:20 Fa Li (Wuhan University) Spark-based big enterprise registration data imputation to support spatiotemporal distribution analysis of industries in China
11:40 Junsan Zhao (Kunming University of Science and Technology) Methodology and implementation of the monitoring and supervision system for land resources based on the integration of 3S and mobile internet technology

**Paper Session 12: Urban Environment Analysis (III)**

**Chair: Nengcheng Chen**

**Room: Salon E**

10:40 Di Zhu (Peking University) Infer spatial interaction patterns from spatial distributions
11:00 Yunkai Zhou (Henan University) (Withdraw) Spatial and temporal change of human disturbance and its landscape response in the coastal zone of Jiangsu Province, China
11:20 Nengcheng Chen (Wuhan University) Design and implementation of a smart fire-fighting equipment patrol system based on internet of things and real-time GIS
11:40 Dandan Li (Wuhan University) An RFID and sensor web-enabled smart electric power equipment inspection system

**Paper Session 13: Geocomputation (I)**

**Chair: Chengzhi Qin**

**Room: Salon A**

10:40 Lingjia Liu (Wuhan University) A multi-scale areal feature matching method based on MBR contraction query algorithm and geometric similarity
11:00 Chengzhi Qin (Chinese Academy of Sciences) Automation of typical location-based derivation of fuzzy slope positions

11:20 Chao Wang (Wuhan University)  
Design and implementation of natural disaster event modeling prototype system

11:40 Xiang Chen (Arkansas Tech University)  
The edge effect in food access research: evidence, methods, and applications

### **Paper Session 14: Spatial Analysis of Environment (I)**

**Chair: Le Wang**

**Room: Salon B**

10:40 Ruisheng Wang (University of Calgary)  
A ground removal method for mobile LiDAR Data

11:00 Suwen Gu (Jiangxi Normal University)  
Virtual geographic environment for WATLAC hydrological model integration

11:20 Yandong Wang (Wuhan University)  
Locating a trade area using social media data with a calibrated Huff model

11:40 Le Wang (University at Buffalo)  
Status of using spatial information in remote sensing

## **Day 2: August 3, 2017**

**14:00 – 15:40**

### **Paper Session 15: Student Paper Competition (I)**

**Chair: Xiang Chen**

**Room: Ballroom 1**

14:00 Yao Feng (Queen's University)  
Spatiotemporal variability of aerosols and driving mechanisms in north China during 2000-2015

14:20 Jianjun Xia (Tsinghua University)  
A novel approach for building extraction from 3D disaster scenes of urban area

14:40 Xiao Huang (University of South Carolina)  
A rapid flood mapping approach by integrating post-event remote sensing imagery and volunteered geographic information

15:00 Zhanghua Li (Tsinghua University)  
GIS based dynamic modeling of fire spread with cellular automation model

15:20 Meifang Li (Sun Yat-sen University)  
Sensitivity to spatial scale in disease cluster detection: An analysis with the spatial scan statistic method

## **Paper Session 16: Health (I)**

**Co-Chairs: Wei Tu & Wei Luo**

**Room: Ballroom 4&5**

14:00 Jun Luo (Missouri State University) Analyzing spatial accessibility to foods in GIS: A case of Springfield, MO
14:20 Wei Tu (Georgia Southern University) Comparing spatial and multilevel modeling approaches: A case study using preterm birth data in Georgia, USA
14:40 Ming-Hsiang Tsou (San Diego State University) Building a lightweight web mapping and analytic application for visualizing health disparities
15:00 Zhongliang Wang (East China Normal University) Extracting and visualizing location-based emotions in microblogs on the Cesium virtual globe platform
15:20 Wei Luo (University of California, Santa Barbara) Impact of HIV self-testing programs among men who have sex with men in Atlanta and Seattle

## **Paper Session 17: Urban Environment Analysis (IV)**

**Chair: An Zhang**

**Room: Salon E**

14:00 Man Yee Wong (Chinese University of Hong Kong) An exploratory study of locational factors of illegal private columbarium in Hong Kong using GIS
14:20 Tao Hu (Kent State University) Using social network approach to analyze crime patterns
14:40 An Zhang (Chinese Academy of Sciences) Uncovering the relationship between human dynamics and land use patterns by using social media data
15:00 Peijun Rong (Henan University) Spatial pattern of residential carbon emissions based on situated lifestyle theory
15:20 Mingjun Peng (Wuhan Land Resource and Planning Information Center) An evaluation model for intensive use of urban land based on BGWR: A case study of Wuhan

## **Paper Session 18: Spatial Analysis of Environment (II)**

**Chair: Ping Yang**

**Room: Salon B**

14:00 Yonghai Teng (Tangshan Research Institute) The evaluation of foundation stability and anti-deformation technology for building built on the coal mining subsidence area
14:20 Jingyi Zhang (Wuhan University) Estimating ground PM2.5 concentration using eigenvector spatial filtering regression
14:40 Ping Yang (Texas A&M Forest Service) Reinforcing wildfire predictive services with timely weather information

15:00 Shuangxi Miao (Southwest Jiaotong University)  
A Knowledge-guided Landslide Deformation Prediction Approach Based on SVR

15:20 Feifei Wang (Chinese Academy of Sciences)  
Relationship between sensible heat flux and land cover pattern in an urban area

## **Paper Session 19: Geospatial Information Representation (I)**

**Chair: Guangyu Zhang**

**Room: Ballroom 3**

14:00 Guangyu Zhang (MRF Geosystems Corporation)  
A principle for determining the optimum surveying accuracy

14:20 Jun Yan (Western Kentucky University) (Withdraw)  
GIS applications in developing zero-waste strategies at a mid-size American university

14:40 Wei Luo (Northern Illinois University)  
Innovative landslide susceptibility mapping supported by geomorphon and geographical detector methods

15:00 Ke Wang (China University of Geosciences)  
Design and implementation of hydrological sensor web optimal deployment prototype system

15:20 Weilian Li (Southwest Jiaotong University)  
Display and interaction for debris flow disaster scene based mobile virtual reality

## **Paper Session 20: Spatial Analysis of Socio-economics (II)**

**Chair: Lin Liu**

**Room: Ballroom 2**

14:00 Bing She (University of Michigan)  
Real-time fusion of social media data and census data

14:20 Andres Bernal (CINVESTAV-IPN)  
A generic spatial-temporal model for discrete dynamical systems using GIS and cellular automata

14:40 Zhipeng Gui (Wuhan University)  
Developing a web-based visual analytics framework for massive POI datasets: Taking enterprise registration data as an example

15:00 Lin Liu (University of Cincinnati, Sun Yat-sen University)  
Spatial morphology and configuration patterns of urban burglary hotspots in a Chinese context

15:20 Yinghai Ke (Capital Normal University)  
Spatiotemporal downscaling approaches for monitoring 8-day 30m actual evapotranspiration

## **Paper Session 21: Hazard Mapping and Risk Assessments (II)**

**Chair: Xun Shi**

**Room: Salon A**

14:00 Lin Li (Wuhan University)  
A trial for semantic mapping of topographic category “surface water” between Chinese and American

14:20 Jiwei Li (University of Massachusetts, Amherst) Estimation of inland and coastal water properties with Landsat-8 OLI imagery
14:40 Xun Shi (Dartmouth College) Association between amyotrophic lateral sclerosis and water quality in northern New England
15:00 Jian Xu (Jiangxi Normal University) Hyperspectral models for remote sensing of total suspended matter in turbid water of Poyang Lake
15:20 Juanle Wang (Chinese Academy of Sciences) Development and application of disaster risk reduction knowledge service

## Day 2: August 3, 2017

16:00 – 17:20

### **Paper Session 22: Student Paper Competition (II)**

**Chair: Xiang Chen**

**Room: Ballroom 1**

16:00 Dameng Yin (University at Buffalo) Individual crown delineation of mangrove forests using UAV
16:20 Mingjie Song (Queen's University) A comparison of SA, GA and PSO for solving the multi-objective land allocation (MOLA) problem
16:40 Ruiting Zhai (University of Connecticut) Predicting the effect of land use/cover change on the distribution of glossy buckthorn as an invasive plant
17:00 Ying Jin (Huazhong Agricultural University) Differences and influencing factors of pesticide and chemical fertilizers application of different household types: A case study in Wuhan peri-urban area

### **Paper Session 23: Topic of China (IV)**

**Chair: Hao Huang**

**Room: Ballroom 2**

16:00 Jiangxia Ye (Southwest Forestry University) Modeling the spatial pattern of human-induced wildfire in Yunnan Province, China
16:20 Hao Huang (Illinois Institute of Technology) Chinese urbanization agglomeration economies and diseconomies: GIS application in population, migration, and foreign direct investment location
16:40 Peng Wang (Jinan University) Spatial evolution of enterprise cluster based on spatial analysis approach: A case study of Guangzhou real estate industry
17:00 Binying Wen (Huazhong Agricultural University) Spatio-temporal pattern of Chinese farmland conversion pressure

## **Paper Session 24: Urban Environment Analysis (V)**

**Chair: Min Liu**

**Room: Salon E**

16:00 Chun Liu (Wuhan University) A novel framework for automatic built-up area extraction from high-resolution remote sensing imagery
16:20 Yue Deng (Beijing Normal University) Spatial-temporal change of lake water extent in Wuhan urban agglomeration based on Landsat images from 1987 to 2015
16:40 Xiaojiang Li (MIT Senseable City Lab) Quantifying the shade provision of street greenery using Google street view panoramas in Boston
17:00 Min Liu (Peking University) Research on floating car map matching algorithm

## **Paper Session 25: Urban Environment Analysis (VI)**

**Chair: Xinyue Ye**

**Room: Salon B**

16:00 Hao Zhang (University at Buffalo) Analyzing spatial heterogeneity of pedestrian activity in Elmwood Avenue, Buffalo
16:20 Tu Dam Ngoc Le (University at Buffalo) Assess walking accessibility to public parks in the City of Buffalo
16:40 Yanjia Cao (University of Maryland) Spatiotemporal patterns of drug poisoning deaths involving heroin in the US
17:00 Xinyue Ye (Kent State University) A visual analytics framework for comparative urban trajectory analysis

## **Paper Session 26: Geocomputation (II)**

**Chair: Xiaocui Zheng**

**Room: Salon A**

16:00 Xiaocui Zheng (Tsinghua University) The methodology of UAV route planning for efficient 3D reconstruction of building model
16:20 Han Yue (Wuhan University) An effective method to determine critical distances for the Knox test
16:40 Zhenqiang Li (Wuhan University) A detailed comparison of partitioning methods in distributed large scale VecCA model
17:00 Qianjiao Wu (Wuhan University) A parallel method for extracting the flow path network based on CUDA

## **Paper Session 27: Health (II)**

**Chair: Feibing Zhan**

**Room: Ballroom 4&5**

16:00 Feibing Zhan (Texas State University) Spatially informed strategies for cancer intervention
16:20 Xintao Liu (The Hong Kong Polytechnic University) Exploring the dynamics of student mobility towards a smart campus
16:40 Yuxia Huang (Texas A&M University) Spatial access to healthcare and potentially preventable hospitalizations for older adults
17:00 Mei Li (Peking University) A cloud-based chemical release model framework for emergency response GIS system

## **Paper Session 28: Geospatial Information Representation (II)**

**Chair: Bing She**

**Room: Ballroom 3**

16:00 Enze Zhang (University at Buffalo) Indoor contact network analysis for spatial pathways of influenza transmission
16:20 Anlu Zhang (Huazhong Agricultural University) Cross-regional compensation mechanism under non-balanced development of land — An empirical analysis based on the second national land survey
16:40 Shuming Bao (University of Michigan) Recent advances in the online spatial data analysis and service
17:00 Enbo Zhou (Peking University) Investigating street accident characteristics and optimal safe route recommendation: A case study of New York City

## Day 3: August 4, 2017

9:00 – 10:40

### **Paper Session 29: Geospatial Information Representation (III)**

**Chair: Shixiong Hu**

**Room: Ballroom 3**

9:00 Shixiong Hu (East Stroudsburg University of Pennsylvania) Analysis of LiDAR data with automated classification and statistic methods
9:20 Fahui Wang (Louisiana State University) Inverted 2SFCA method for measuring facility crowdedness
9:40 Chuanrong Zhang (University of Connecticut) Application of Markov chain geostatistical co-simulation to land cover post-classification
10:00 Daniel Griffith (University of Texas at Dallas) A geocomputation and geovisualization comparison of Moran and Geary eigenvector spatial filtering

### **Paper Session 30: Urban Environment Analysis (VII)**

**Chair: Peijun Du**

**Room: Salon E**

9:00 Qili Gao (Wuhan University) Identifying intra-city residential spatial distribution changes using transit smart card data
9:20 Xiaoyue Chen (Guangzhou University) Spatial evolution of urban villages with changes of infrastructure and social services: A case study in Guangzhou
9:40 Yanyan Gu (Wuhan University) Urban functional areas interactions analysis using multi-source data
10:00 Peijun Du (Nanjing University) A systematic framework for urban remote sensing: Basic ideas and case studies

### **Paper Session 31: Spatial Analysis and Optimization**

**Chair: Qiusheng Wu**

**Room: Salon B**

9:00 Qiusheng Wu (Binghamton University) A new approach for handling nested depressions in digital elevation models for hydrological analysis
9:20 Yanxi Li (University of Electronic Science and Technology of China) Identification of influential spreaders in geo-social network
9:40 Jianguo Wang (Worldwide Learning Services, Inc.) Routing school bus for better students learning experience
10:00 Jinxin Shen (National University of Defense Technology) Buffer analysis based on Hilbert curve in distributed memory environment
10:20 Jin Peng (National University of Defense Technology) Geo-gap Tree: Progressive online visualization and sampling estimation for spatial data



## **Paper Session 32: Social Media, Social Networks, and VGI**

**Chair: Lan Mu**

**Room: Ballroom 2**

9:00 Yujia Pan (University at Buffalo) Characteristics of grant proposal collaboration networks - A case study
9:20 Lan Mu (University of Georgia) Friendship paradox in geographic data and its utilization in spatial interpolation
9:40 A-Xing Zhu (University of Wisconsin-Madison) Integration of volunteered information for geographic analysis

## **Paper Session 33: Geocomputation (III)**

**Chair: Shih-Lung Shaw**

**Room: Salon A**

9:00 Min Chen (Nanjing Normal University) Sharing geographic models on the open network
9:20 Shih-Lung Shaw (University of Tennessee) Time geography and GIScience: A diorama-oriented approach
9:40 Qisheng Pan (Texas Southern University) (Withdraw) Transit GIS and its applications
10:00 Linna Li (California State University) Design and development of a crowdsourcing mobile app for disaster response

## **Paper Session 34: Trajectory and Tracking Data**

**Chair: Xiaobai Yao**

**Room: Ballroom 1**

9:00 Mingxiao Li (Chinese Academy of Sciences) A Trajectory prediction approach based on fuzzy-LSTM models
9:20 Xiaobai Yao (University of Georgia) Tracking human movements with cell phone data – two case studies
9:40 Jiawen Yang (Peking University Shenzhen Graduate School) Detecting road waterlogging with vehicle tracking and precipitation data
10:00 Bo Huang (Chinese University of Hong Kong) Big data and human activities: Detecting urban structure and vibrancy

## Notes

## Notes

# General Information

## Registration

Conference registration will be open in the Marriott Hotel, except on the morning of August 2 when it will be at the UB Center for Tomorrow. See page 9 for times.

Tuesday, August 1: 12:00-19:00, Marriott Hotel

Wednesday, August 2:

7:30-12:00, Center for Tomorrow

14:00-16:30, Marriott Hotel

Thursday, August 3: 8:30-12:00, Marriott Hotel

Friday, August 4: 8:00-12:00, Marriott Hotel

## Conference Venues

The conference will take place in two venues:

**Buffalo Marriott Niagara Hotel and UB Center for Tomorrow** (August 2 morning only).

On Wednesday, August 2, delegates meet at the UB Center for Tomorrow for breakfast, opening events, a group photo, and lunch. Buses will take delegates from the Marriott Hotel entrance between 7:30 and 8:30. Parking is available.

All other daytime events will be at the Marriott Hotel. Breakfast and lunch for delegates will be in Ballrooms 4 and 5, tea/coffee breaks will be in the registration area.

## Conference Meals

All conference breakfasts and lunches require a meal ticket. Tickets are included with registration and provided at registration.

## Evening Conference Events

These events are included in registration for conference delegates and tickets will be given at registration. Non-delegates must purchase tickets at the registration desk.

### Wednesday, August 2: Niagara Falls

The Niagara Falls trip includes dinner, a *Maid of the Mist* boat ride, an Imax movie, and time to take photos. Meet at the Marriott entrance at 17:00.

### Thursday, August 3: CPGIS Dinner

The CPGIS Dinner evening will take place at Congregation Shir Shalom, 4660 Sheridan Drive, Williamsville, NY 14221.

Buses will take guests from the Marriott Hotel entrance from 17:30-18:00 and return guests to the hotel at the end of the evening.

## Conference Hotel Accommodation

Buffalo Marriott Niagara Hotel

1340 Millersport Highway, Amherst, NY 14221

T: (716) 689-6900

DoubleTree by Hilton Hotel Buffalo-Amherst

10 Flint Rd, Amherst, NY 14221

T: (716) 689-4414

## Parking

Free parking is available at all conference venues and hotels.

## Transportation

Taxis are available at both hotels. Airport shuttle buses are available on a limited basis at both hotels, book in advance at the hotel front desk. Ride sharing services, e.g., Uber, are now available in Buffalo. There is no public transport from the hotels to the airport, downtown Buffalo, or Niagara Falls.

Buses are provided for conference delegates between the Marriott and the UB Center for Tomorrow for the morning opening events and lunch on August 2 (see above for details). Buses are also provided for ticket holders for both evening events (see details above).

## Internet Access

Internet access is available for all conference attendees using the password: **cpgis**

## Cell Phones

Delegates are asked to switch off or silence their cell phones in all meeting rooms during sessions.

## Restaurant Guide

See your delegate bag, the NCGIA web site, or the hotel concierge for recommendations.