## **The 21st International Conference on Geoinformatics**

June 20-22, 2013

Kaifeng, China

GIS in Economic Development, Regional Planning and Environmental Protection

Program

#### **Co-Organizers:**

Henan University, China

Key Lab of Geospatial Technology for the Middle and Lower Yellow River Regions, Ministry of Education College of Environment and Planning

The International Association of Chinese Professionals in Geographic Information Sciences (CPGIS)

Henan Association for Science and Technology, China

#### **Co-Sponsors:**

IEEE Geoscience and Remote Sensing Society (IEEE GRSS)

Key Research Institute of Yellow River Civilization and Sustainable Development, Ministry of Education, Henan University, China

The Geographical Society of Henan Province, China

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OS39[Room E]: Image Processing (2)	
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# Committees

# Honorary Chairmen

Guanhua	Chinese Academy of Sciences,	Michael	University of California Santa
Xu	China	Goodchild	Barbara, USA

# **International Steering Committee**

Jun Chen	National Geomatics Center of China, China	Jianya Gong	Wuhan University, China
Peng Gong	CPGIS and University of California	Huadong	The Chinese Academy of Sciences,
	Berkeley, USA	Guo	China
Mei-Po	University of Illinois at	Deren Li	Wuhan University, China
Kwan	Urbana-Champaign, USA		
Xiaowen Li	Beijing Normal University & IRSA	Hui Lin	Chinese University of Hong Kong,
	of CAS, USA		China
Daniel Sui	Ohio State University, USA	Jiulin Sun	The Chinese Academy of Sciences,
			China
Vincent	Chairman of Global Earth	Bor-Wen	Taiwan GIS and National Taiwan
Tao	Investment, China	Tsai	University, Taiwan, China

# **Publication Committee**

Shixiong	East Stroudsburg University of PA,	Xinyue Ye	Kent State University, USA
Hu	USA (co-chair)		(co-chair)
Jie Chang	ESRI, USA		

# **Program Committee**

Xun Shi	Dartmouth College, USA (co-chair)	Pinde Fu	ESRI, USA (co-chair)
Shuming	CPGIS and University of Michigan,	Battersby	University of South Carolina, USA
Bao	USA	Sarah	
Ling Bian	State University of New York at	Aijun Chen	George Mason University, USA
	Buffalo, USA		
Yuemin	Verizon, USA	Jenny Du	Mississippi State University, USA
Ding			
Diansheng	University of South Carolina, USA	Qinghua	University of California at Merced,
Guo		Guo	USA
Shixiong	East Stroudsburg University, USA	Bo Huang	The Chinese University of Hong
Hu			Kong, China
Yuxia	Texas A&M University, USA	Minghe Ji	East China Normal University,

Huang			China
Bin Jiang	University of Gävle,Sweden	Yunfeng	Henan University, China
Peijun Li	Peking University, China	Kong Xiang Li	East China Normal University, China
Zhilin Li	The Hong Kong Polytechnic University, China	Wenwen Li	Arizona State University, USA
Desheng Liu	Ohio State University, USA	Yaolin Liu	Wuhan University, China
Yu Liu	Peking University, China	Feng Lu	Chinese Academy of Sciences, China
Yongmei Lu	Texas State University, USA	Wei Luo	Northern Illinois University, USA
Ruijin Ma	Redlands University, USA	Xuelian Meng	Louisiana State University, USA
Jeremy Mennis	Temple University, USA	Lan Mu	University of Georgia, USA
Qisheng Pan	Texas Southern University, USA	Fang Qiu	University of Texas at Dallas, USA
Shih-Lung Shaw	University of Tennessee, USA	Yongwei Sheng	UCLA, USA
Daoqin Tong	University of Arizona, USA	Wei Tu	Georgia Southern University, USA
Cuizheng Wang	University of Missouri-Columbia, USA	Fahui Wang	Louisiana State University, USA
Shaowen Wang	University of Illinois at Urbana Champaign, USA	Le Wang	State University of New York at Buffalo, USA
Lei Wang	Louisiana State University, USA	Yehua Wei	Utah University, USA
Changshan Wu	University of Wisconsin-Milwauke, USA	Lun Wu	Peking University, China
Hongjie Xie	University of Texas at San Antonio, USA	Bing Xu	Tsinghua University, China
Bo Xu	California State University, USA	Chaowei Yang	George Mason University, USA
Zhengwei Yang	George Mason University, USA	Xiaojun Yang	Florida State University, USA
Xiaobai Yao	University of Georgia, USA	Xinyue Ye	Kent State University, USA
Genong Yu	George Mason University, USA	Wenze Yue	Zhejiang University, China
Benjamin	Texas State University-San Marcos,	Chuanrong	University of Connecticut, USA
Zhan	USA	Zhang	
Xianfeng Zhang	Peking University, China	Hao Zhang	Fudan University, China
Peisheng Zhao	George Mason University, USA	Lihua Zhao	NSW Department of Planning, Australia
Qiming	Hong Kong Baptist University,	Axing Zhu	University of Wisconsin-Madison,

Zhou	China
Yunqiang	Institute of Geographic Sciences,
Zhu	China

#### USA

# **Organizing Committee**

Yaochen	Henan University, China (co-chair)	Pinde Fu	ESRI, USA (co-chair)
Qin			
Xiaojian Li	Henan University, China (co-chair)	Junzhong	Henan University, China
		Yang	
Yunfeng	Henan University, China	Mingzhou	Henan University, China
Kong		Qin	
Changhong	Henan University, China	Lianqi Zhu	Henan University, China
Miao			
Shixiong	East Stroudsburg University of PA,	Yuzhen Liu	Henan University, China
Hu	USA		
Congguo Li	Henan University, China	Fen Qin	Henan University, China
Jiajun Qiao	Henan University, China	Qiumin Zhai	Henan University, China
Shengyan	Henan University, China		
Ding			

# **Useful Information**

#### From Zhengzhou to Kaifeng



#### **From Xinzheng International Airport:**

- **By taxi**: about 300 Yuan which is roughly \$50.
  - By airport bus:Price: 40 Yuan (about \$7) per person
    - **Operating time**: Buses go to Kaifeng every 1 hour in the morning and every 1.5 hours in the afternoon from 10:00-22:00.
      - **Driving time**: about 1 hour
      - o Directions: Buy ticket at gate #5 get on the bus at gate #6 get off at Kaifeng Haode Square (开封豪
      - 德广场) then get to your hotel by taxi which costs less than 10 Yuan (about \$2)
      - o Bus company telephone: 86-0378-8886999

#### From Zhengzhou Railway station:

- Get to Zhengzhou Longhai Bus station (郑州陇海汽车站) which has buses to Kaifeng every 15 minutes at 7 Yuan (~\$1) per person.
- Bus operational hours: 6:20-20:00

Henan University will have volunteers working at Zhengzhou Railway Station, Zhengzhou East Rail Station and Xinzheng International Airport on June 19 and 20. They will help you choose the right transportation means to Kaifeng.

#### **From Kaifeng Railway Station**

The conference will held at Henan University **new** campus (also named Jinming campus). From Kaifeng Railway Station

- To Zhongzhou International Jinming Hotel, University training hotel: by taxi, about 20 Yuan (~\$3)
- New Century Grand Hotel Kaifeng by taxi ,about 15-20 Yuan (~\$2-\$3)





#### **Campus Map of Henan University Jinming Campus (HENU)**

Note: All sessions in June 20, 21 and 22 will be held on the campus.

# <u>Conference Rooms in Computer Building(计算机大楼)</u>

Second floor	Conference room (二楼会议室)	Main Venue
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#### <u>Conference Rooms in Jinming Hotel (金明酒店)</u>

	Fourth conference room (第四会议厅)	Room A
First floor	Fifth conference room (第五会议厅)	Room B
	Zhongzhou Hall (中州厅)	Room C
Second floor	First conference room (第一会议厅)	Room D
	Distinguished guest room (贵宾厅)	Room E

Note: All sessions in June 21 and 22 are held in the Jinming Hotel.

## <u>Conference Rooms in University Library (图书馆)</u>

Second floor	Conference room (二楼会议室)	Room F
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# **Registration Site and Time**

Day	Time	Location	
June 19	10:00-21:00	New Century Grand Hotel Kaifeng (开元名都大酒店) Jinming Hotel (金明酒店)	
June 20	08:00-16:00	University Library (图书馆一楼大厅)	
June 21	08:00-16:00	Jinming Hotel (金明酒店)	
June 22	08:00-16:00	Jinming Hotel (金明酒店)	

# Tea Break and Lunch

	Day	Time	Location
Tea Break	June 20	10:20-10:40	University Library
	Julie 20	14:50-15:10	
	June 21 & 22	10:10-10:30	Jinming Hotel
	June 21 & 22	15:10-15:30	
Lunch	June 20	12:00-13:30	Jinming Hotel
	June 21 & 22	12:10-13:30	Jinming Hotel

Program	Overview
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Day	Time	Program					Venue		
19-Jun	Morning Afternoon		Registration					New Century Grand Hotel, Jinming Hotel	
			Opening Ceremony & Group Photo					University	
	Morning	Keynote Session I&II					Library		
	Afternoon	Keynote Session III&IV							
20-Jun	Evening		Welcome Dinner					Jinming Hotel	
			Parallel oral sessions & Panel discussion sessions Poster						
		Room A	Room B	Room C	Room D	Room E	Room F	Lobby	
	Morning	OS01 OS02	OS03 OS04	OS05 OS06	OS07 OS08	PD01 OS09	Student Paper Competition	PS01	Jinming Hotel
21-Jun	A.C.	OS11	OS13	OS15	OS17	PD02		DGOO	
	Afternoon	OS12	OS14	OS16	OS18	OS20	PD03	PS02	
	Evening	CPGIS Night				Qingyuan Park			
		OS21	OS23	OS25	OS27	OS29		PS03	
	Morning	OS22	OS24	OS26	OS28	OS30		1903	Jinming Hotel
22-Jun		OS31	OS33	OS35	OS37	OS39		PS04	
	Afternoon	OS32	OS34	OS36	OS38	OS40		1001	

# June 19

# **Registration (10:00-21:00)**

Venue: New Century Grand Hotel (开元名都大酒店)

Jinming Hotel (金明酒店)

# June 20

#### **Opening Ceremony (08:30-09:00)**

Venue: Conference Room, Second Floor, Computer Building Chair: Prof. Xiaojian Li (Henan University, China) Welcome addresses given by:

 President, Henan University, China
 Dr. Pinde Fu, President, The International Association of Chinese Professionals in Geographic Information Sciences
 Prof. Guanhua Xu, Honorary Chair, Chinese Academy of Sciences, China
 Prof. Liuke Liang, Vice Chairman, Henan Association for Science and Technology, China

#### **Group Photo (09:00-9:20)**

Location: Outside of Library main entrance

#### Keynote Session I (09:20-10:40)

**Venue:** Conference Room, Second Floor, Computer Building **Chair:** Hui Lin (The Chinese University of Hong Kong, China)

9:20 Prof. Guanhua Xu (Chinese Academy of Sciences, China) Global climate change and the sustainable development

10:00 Prof. Michael F. Goodchild (American Academy of Sciences, USA) Planning in a Geospatially Enabled Society

## Tea break (10:40-10:50)

#### Keynote Session II (10:50-12:10)

**Venue:** Conference Room, Second Floor, Computer Building **Chair:** Pinde Fu (ESRI, USA)

10:50 Prof. Li Deren (Wuhan University, China) Smart City:Concept Supporting Techniques and Applications 11:30 Prof. Milan Konecny (International Eurasian Academy of European Studies Center, EU) Early Warning and Disaster Management Challenges for Europe and China: from GIS to VGE

#### Keynote Session III (13:30-14:50)

**Venue:** Conference Room, Second Floor, Computer Building **Chair:** Vincent Tao (Chairman of Global Earth Investment, China)

> 13:30 Prof. Gangjun Liu (RMIT University, Australia) Location-Enabled Approaches to Australia's Ageing in Place Strategy

14:10Prof. Daniel Sui (The Ohio State University, USA) Crowdsourcing Geographic Knowledge through Open GIS

#### Tea break (14:50-15:10)

#### Keynote Session IV (15:10-16:30)

**Venue:** Conference Room, Second Floor, Computer Building **Chair:** Xun Shi (Dartmouth College, USA)

15:10 Prof. Yunfeng Kong (Henan University, China) Spatial Optimization for Compulsory School Location-Allocation and School Bus Routing

15:50 Prof. Yeqiao Wang (University of Rhode Island, USA) Geospatial Information for Monitoring Reporting and Forecasting of the Changing Environments

# Welcome Dinner & Special Event (18:00)

Venue: Jinming Hotel

- **L** Excellence in Service Award
- **4** Excellence in Education Award
- **4** Announce site selection result of GeoInformatics 2014
- **4** Representative of the new site speech

# June 21 (Morning 08:30-12:00)

#### OS01[Room A]: GIS in Economic Development (1)

**Co-Chairs:** Tu Wei (Georgia Southern University, USA), Qisheng Pan (Texas Southern University, USA)

8:30 Tu Wei (Georgia Southern University, USA) Modeling the State Level Economic Growth in the United States 1977-2001

8:50 Yang Wang (Chinese Academy of Sciences, China) Spatial Differentiation Patterns of Housing Price and housing price-to-income ratio in China's Cities

9:10 Qing Wang (Tsinghua University, China) The Eco-Zoning of Huaihe River Basin Based on Multi-Source Data and Spatial Analysis

9:30 Qisheng Pan (Texas Southern University, USA) The Impacts of Light Rail on Residential Property Values in a Nonzoning City: A New Case Study in Houston

9:50 Shiyan Zhai (Henan University, China)

Exploring Carbon emissions economic growth energy and R&D investment in China by ARDL approach

#### OS02[Room A]: GIS in Economic Development (2)

**Co-Chairs:** Tu Wei (Georgia Southern University, USA), Qisheng Pan (Texas Southern University, USA)

10:30 Sanwei He (The Chinese University of Hong Kong, China) The impact of migration and administrative division on the measurement of regional inequality

10:50 Zhiwei Ding (Henan University, China) The Spatio-temporal Characteristics Analysis of New-urbanization level of CPER in China

11:10 Li Gong (Peking University, China) Uncovering trip patterns of human activities from taxi trajectory data

# OS03[Room B]: Processing and application of high-resolution imagery (1)

**Co-Chairs:** Fang Qiu (University of Texas at Dallas, USA) , Tao Tang (State University of New York, USA)

8:30 Fang Qiu (University of Texas at Dallas, USA) An Object-based Image Analysis of WorldView-2 Data

8:50 Yang Cheng ( China University of Petroleum, China) Remote Sensing Monitoring of Gulf of Mexico Oil Spill Using ENVISAT ASAR Images

9:10 Guoming Li (Sichuan Third Surveying and Mapping Engineering Institute, China) The Fusion and Evaluation of WorldView-2 Images—A Case Study of General Survey Project of Geographic National Conditions in Sichuan China

9:30 Junxiang Zhu

Study on Grain for Green Project implementation effect monitoring based on high resolution image

9:50 Tao Tang (State University of New York, USA)

Classification of Building Structures on High Spatial Resolution Satellite Image for Mapping the Readiness to Hurricane Hazards Cancun and Chetumal Mexico

# OS04[Room B]: Processing and application of high-resolution imagery (2)

Chair: Fang Qiu (University of Texas at Dallas, USA)

10:30 Ziyong Zhou ( China University of Petroleum, China) Integration of Association-rule and Decision Tree for High Resolution Image Classification

10:50 Yetao Yang (China University of Geosciences, China) Multi-scale Landscape Pattern Analysis Based on High Spatial Resolution Imagery Segmentation

11:10 Baassou Belkacem (Northwestern Polytechnical University, China) An Accurate SVM-Based Classification Approach for Hyperspectral Image Classification

## OS05 [Room C]: Web GIS

Co-Chairs: Yunfeng Kong (Henan University, China), Pinde Fu (ESRI, USA)

08:30 Pinde Fu (ESRI, USA) Web GIS Course and Lab Design

08:50 Jiuyan Ye (Peking University, China) A Precision Agriculture Management System Based on Internet of Things and WebGIS

09:10 Zhigang Han (Henan University, China) A REST Service Framework for Video Retrieval Based on Geographic Information

09:30 Jie Liu (Henan University, China) Design of the tourism service WebGIS based on Silverligh

09:50 Yimeng Wu (Chinese Academy of Sciences, China) Design and Implementation of Tourism Information System Based on Google Maps API

## **OS06[Room C]: Cartographic Theory and Applications**

Chair: Wei Luo (Northern Illinois University, USA)

10:30 Jiangpeng Tian (Information Engineering University, China) The Concept of Symbol-morpheme and its Application in Map Symbols Design

10:50 Changjiang Gou (Chengdu University of Technology, China) GIS-based landslide susceptibility mapping using analytical hierarchy process in Wenchuan

11:10 Wei Luo (Northern Illinois University, USA) Using Hypsometric Attributes to Quantify Glacial Landscape

## **OS07[Room D]: GIS in planning (1)**

Chair: Shengyan Ding (Henan University, China)

8:30 Ming Fang (Zhejiang University, China) Probe into the Application of Geographic Information System to Scenic Area Planning

8:50 Shengyan Ding (Henan University, China) Landscape heterogeneity of mountainous and hilly areas in western Henan Province of China

9:10 Wanna Wang (Earthquake Administrator of Henan Province, China) Optimal Layout of Borehole Location based on Delaunay Refinement

9:30 Xudong Zhao (Yunnan Normal University, China) The Study of Urban Rainstorm Waterlogging Scenario Simulation Based on GIS and SWMM Model—Take the Example of Kunming Dongfeng East Road Catchment Area

9:50 Jingyu Liu (Henan University, China) A design of urban open spatial information system on the basis of spatial information technology

## OS08[Room D]: GIS in planning (2)

Chair: Changhong Miao (Henan University, China)

10:30 Chen Li (Wuhan University, China)

The Location Analysis of Indemnificatory Housing Based on SMCE

10:50 Yuanmin Zhang (Huaqiao University, China)

Study on Township Space Control Planning for Rural Context Based on GIS Technique

11:10 Jianghua Zheng (Xinjiang University, China) A PostGIS-Based Pedestrian Wayfinding Module Using OpenStreetMap Data

11:30 Hailing Zheng(Sun Yat-sen University)

Monitoring spatiotemporal variations of snow cover using a new MODIS daily cloud-free snow cover product

11:50 Xiaomeng Chang (Wuhan University, China ) Backbone Structure of Social Connections in China's Weibo Social Network

## **PD01[Room E]: Spatiotemporal sciences and innovations**

Chair: Chaowei Yang (George Mason University, USA)

	Panelists:				
08:30-10:10	Michael Goodchild (University of California Santa Barbara, USA)				
	Vincent Tao (Chairman of Global Earth Investment, China)				
	Lin Liu (Sun Yat-Sen university, China)				
	Shaowen Wang (University of Illinois at Urbana Champaign, USA)				
	Xiaobin Cai (ESRI China (Beijing) Ltd )				

## OS09[Room E]: LIDAR

Chair: Shixiong Hu (East Stroudsburg University of PA, USA)

10:30 Shixiong Hu (East Stroudsburg University of PA, USA) Application of LIDAR in Coastal Processes

10:50 Lishan Zhong (Nanjing University, China) An Automatic Technique For Registering Airborne And Terrestrial LiDAR Data

11:10 Yanan Ke (Sun Yat-Sen University, China)A method to automatically determine sea level for referencing snow freeboards and computing sea ice thicknesses from NASA IceBridge airborne LIDAR

# June 21 (Afternoon 13:30-17:30)

#### OS11[Room A]: New trends of technologies and research in GIS community

Co-Chairs: Yu Liu (Peking University, China), Kun Yang (Yunnan Normal University, China)

13:30 Lingyu Chen (Information Engineering University, China) Study of RSA Used in DEM Information Disguising

13:50 Linna Li (University of California, USA)

Is privacy still an issue in the era of big data? Location disclosure in spatial footprints

14:10 Fengru Huang (Peking University, China) Three-dimensional Construction and Visualization of Complex Geologic Environments for Virtual Field Practice and Virtual Education

14:30 Yu Liu (Peking University, China)

Man-land Relationship in the Age of Big Data: A GIScience Perspective

14:50 Yuanhui Zhu (Sun Yat-sen University, China)

The relational model of mangrove vegetation index LAI and biomass at the species level

## OS12[Room A]: Mobile GIS solutions and LBS

**Co-Chairs:** Yuan Tian (Peking University, China), Li Rongxing (Tongji University, China)

15:30 Haitao Zhang (Nanjing University of Posts and Telecommunications, China) Mining Spatial Association Rules from LBS Anonymity Dataset for Improving Utilization

15:50 Jinxin He (Jilin University, China) Development of an Internet GIS Platform based on RIA

16:10 Mei Liu (Sun Yat-Sen University, China) Different responses of MODIS spectral indices to typical drought events during 2000-2012 in Southwest China

16:30 Li Shi (Peking University, China)

Spatial Effect on Social Network: A Study Using Mobile Phone Data

16:50 Guanghua Chi (Peking University, China) Regionalization from a Spatially Embedded Human Interaction Network

## OS13[Room B]: GIS for Environment and Health

Chair: Imam Xierali (Georgetown University, USA)

13:30 Imam Xierali (Georgetown University, USA)
International Medical Graduates from Mainland China, Taiwan, and Hong Kong in the US: An Update
13:50 Jinfeng Zhao (University of Auckland, New Zealand)
Incorporating Ringmaps into Interactive Web Mapping for Enhanced Understanding of Cardiovascular Disease
14:10 Yan Jiang ( China Institute of Water Resources and Hydropower Research, China)
Analysis of spatial distribution of goundwater quality in Huaihe River basin
14:30 Huanli Tang(Yat-Sen University, China)
Spatio-temporal evolution pattern of dike-pond system in Shunde
14:50Chaosheng Zhang (National University of Ireland, Ireland)

GIS as a tool to identify potential associations between environmental and health data

#### OS14[Room B]: Spatial data modeling uncertainty and data quality

Chair: Shuming Bao (University of Michigan, USA)

15:30 Heng Cai (Peking University, China) Script-based 3D Flight Simulation Technology and Its Application in Mineral Resources Management

15:50 Yankun Zhao (Zhengzhou University, China)

The Research and Development of 3D Urban Geographic Information System with Unity 3D

16:10 Yong Zhao (Henan University, China) Spatial Analysis of Chinese Welfare Lottery 'Double Color Ball'

16:30 Fengrui Chen (Henan University, China) Using Indicator kriging to delineate and map the spatial patterns of soil Zn pollution

## OS15[Room C]: Spatial Decision Support

Chair: Xinyue Ye (Kent State University, USA)

13:30 Xinyue Ye (Kent State University, USA) Comparative Space-time Analysis of Regional Inequality and Convergence

13:50 Fei Wang (Tsinghua University, China) Major Concerns of Defining the Map Symbol Standard in Emergency Management

14:10 Tao Liu (Ministry of Education Kunming, China) The Design and Implementation of Seismic Casualties Assessment System of Yunnan Province Based on GIS

14:30 Changjiang Xiao (Wuhan University, China) Design and Implementation of Geospatial Sensor Web Node Management Prototype System

14:50 Shanzhen Yi (Huazhong University of Science and Technology, China) Learning Ontologies for Geographic Entity Matching and Multi-Sources Data Fusion

#### OS16[Room C]: Integration of RS, GIS and GPS (3S)

Chair: Tao Tang (State University of New York, USA), Lianqi Zhu (Henan University, China)

15:30 Lianqi Zhu (Henan University, China)

Method of Soil Erosion Intensity Spatial Variation Research

15:50 Sen Wu (Southwest University of Science and Technology, China)

Regional Landslide Risk Assessment Based on GIS and Contributing Weight Model: A Case Study of Wenchuan County

16:10 Ting Li (Peking University, China)

Slope Location-based Landslide Vulnerability Assessment

16:30 Felipe Perez (Tsinghua University, China)

Habitat suitability assessment using GIS for Amur tigers and their prey in Changbaishan Nature Reserve

16:50 Alex Praveen P (Anna University Chennai, India)

Integration of RS, GIS & GPS (3S) Tech-Stick for visually Impaired

#### OS17[Room D]: Satellite Positioning Technology and Location based service

Co-Chairs: Yingru Li (Auburn University, USA)

13:30 Zhe Zeng ( China University of Petroleum, China) Navigation Map Update Framework under Beidou RDSS Mechanism

13:50 Faqin Gao (Zhejiang Sci-Tech University, China) An Adaptive Acquisition Algorithm Of GNSS Receiver

14:10 Jimin Liu (Shandong University of Science and Technology, China) An Improved ADPAM Algorithm

14:30 Run Huang (Wuhan University, China) Evaluation of GPS Trajectories on VIG and Social Websites

## OS18[Room D]: Urban & Regional GIS applications

Co-Chairs: Yingxia Pu (Nanjing University, China), Jie He (Tianjin University, China)

15:30 Jie He (Tianjin University, China) VGI on China Urban Cultural Heritage Conservation: a Perspective from Public Archaeology

15:50 Zhifang Gao (Peking University, China) A GIS-Based Study of Monthly Average Global Solar Radiation

16:10 Shaoqi Pan (Henan University, China) Spatial Structure of the Economic Network of Central Plains Economic Zone

# **PD02**[Room E]: GIS Education: Challenges Directions and Globalization

Co-Chairs: Pinde Fu (ESRI, USA), Yaochen Qin (Henan University, China)

13:30

Panelists:

Michael Goodchild (University of California Santa Barbara, USA)

Milan Konecny (International Eurasian Academy of European Studies Center, EU)

Hui Lin (Chinese University of Hong Kong, China)

Daniel Sui (Ohio State University, USA)

Xiaobing Cai (ESRI China (Beijing) Ltd )

#### OS20[Room E]: Land Use / Land Cover Chang

**Co-Chairs:** Jianhua Wang (Beijing Normal University, China), Guoyin Cai (Beijing University, China)

15:50 Jianhua Wang (Beijing Normal University, China) Drivers and Effects of LUCC in River Naoli Watershed Sanjiang Plain, Northeast China

16:10 Guoyin Cai (Beijing University, China) Detection of Land Cover and Thermal Environment Change in Beijing From TM Images

16:30 Qun Zhang (Nanjing University, China) Evaluation and Optimization on Land Use Structure——A Case Study of Wujin County

16:50 Mei Zhang (Nanjing University, China) A GIS-based approach for estimating land use related carbon emissions

17:10 Yu lian Yang (Yunnan Normal University, China) The simulation of land use and land change Erhai Lake Basin based on CA-Agent

## PD03[Room F]: GIS research, development and Industry

Chair: Vincent Tao ( Chairman of Global Earth Investment, China)

15:00

Innovation in LBS and O2O, Vincent Tao (Chairman of Global Earth Investment, China) GIS now in main turning point, Xiaobing Cai (Vice CEO, Esri China) GIS Software in the smart era, Kanghong Wang (Vice CEO, Super Map)

Panel Discussion:

#### **CPGIS Executive Committee Conference**

Venue: Conference Room, Fourth floor, College of Environment and Planning

#### **Special Session: Student Paper Competition (08:30-10:00)**

**Venue:** Room F **Co-Chairs:** Jie Tian

08:30 Ying Ge (Hohai University, China), Ming Zhong, Yunting Li Accuracy Analysis on Automatically Extracted River Network Based on SRTM DEM —A Case Study of Oujiang Watershed in Zhejiang Province 08:45 Wenlong Jing (Henan University, China), Min Feng, Yaping Yang ,Heli Lu Decade 1km resolution monthly temperature data for China 09:00 Yan Li (Nanjing University, China), Shixing Jiao Construction of Data Resources Catalogue System of Yellow River Based on Distributed-ontology 09:15 HuiRen (Tsinghua university, China),HongRui Zhao A Way to Calculate Information of Anomaly Change of Land-use Types 09:30 Jianhua Wang, Chao Xie, Qiming Qin The Study of Expressway Geographic Information Management System 09:45 Jun Xie (East China Normal University, China) Optimal allocation strategy for making a staged evacuation plan with multiple exits

#### Tea break (10:00-10:20)

10:20 Yunqin Zhong (Chinese Academy of Sciences, China), Jinyun Fang, Xiaofang Zhao VegaCache: Efficient and Progressive Spatio-Temporal Data Caching Scheme for Online Geospatial Applications

10:35 Guohui Zhu (Hohai University, China) , Ying Ge, Huachen Wang A Modified Ripley's K Function to Detecting Spatial Pattern of Urban System

#### **Special Event**

#### **4** Announce student paper competition result (17:30-17:40)

#### **4** CPGIS Night

17:40 Gathering in the front of Jinming Hotel and take bus to Qingyuan Park. Issue the ticket to the park on the bus. Visit Park and eat local food inside the park (pay cash by yourself). The Out-door Performance and Laser Show will begin at around 8:00-8:10 pm, please arrange your time to enter the performance site between 7:30-8pm.

# June 22 (Morning 08:30-12:00)

# OS21[Room A]: Geospatial computation, simulation and optimization (1)

Chair: Xiang Li (East China Normal University, China)

8:30 Zengwang Xu

A Gap Statistic For Detecting Population Discontinuities On The City Size Distributions: A Study On The City System In Texas 1850-2010."

8:50 Huake Hu (Jiaying University, China)

Colony Optimization Algorithm Applied To Simplification Of Closed Linear Objects

9:10 Zhengdong Huang (Wuhan University, China) A Hierarchical Framework For Bus Stop Optimization

9:30 Yi Li (Peking University, China) XML-Based Model Libraries Application In Geographic Information System

9:50 Xiaomei Bi (Wuhan University, China) Building Topological Flow-Path Networks Based On Scale-adaptive DEM

# OS22[Room A]: Geospatial computation, simulation and optimization (2)

Chair: Xiang Li (East China Normal University, China)

10:30 Pengcheng Qi (Henan University, China) On The Suitability Of The SRTM DEM For Simulating Potential Insolation

10:50 Dan Li (Nanyang Normal University, China)

Large-scale Urban Sprawl Simulation Using A Spatial Partition Strategy And GPU-CA Model

11:10 Xi Liu (Peking University, China)

A Network View Of Urban Mobility And City Structure With Taxi Trips

11:30 Jin Brus (Faculty of Science of Palacky University, Czech)

The Evolution Of The Floodplain Forests As Indicators Of Landscape Changes In The Alluvium Of The Morava River

#### **OS23[Room B]: Representation and Visualization of Geospatial Data**

Chair: Youmin Chen (Henan University, China)

8:30 Ya Hu (Southwest Jiaotong University, China)
Real-time Visualization Of Three-dimensional High-speed Railways Based On Model Combination
8:50 Genxin Song (Zhejiang University, China)

Spatial Simulation Of Soil Attribute Based On Principle Of Soil Science

9:10 Xiao Guo (Peking University, China) Large-scale Terrain Visualization System In A Cluster Environment

9:30 Mei Li (Peking University, China) Three-dimensional Roadway Topological Modeling And Visualization Technique For Mine

#### OS24[Room B]: Geospatial computation, simulation and optimization (3)

Chair: Mei Li (Peking University, China)

10:30 Changqing Yan (Shandong University of Science and Technology, China) A Novel Method For Dynamic Modeling And Real-Time Rendering

10:50 Haoran Li (Peking University, China) Intelligent Loading Of Code Modules Based On The Users' Historical Operating Log In GIS Software

11:10 Nan Yin (Yunnan Normal University, China) Use Of RADARSAT-2 Data To Retrieve Soil Moisture Over Bare Soil Agricultural Fields

11:30 Lei Liu (Peking University, China) A Framework And Implementation For Qualitative Geographic Information Retrieval

## OS25[Room C]: Management and Application of Remote Sensing

Chair: Mei Li (Peking University, China)

8:30 Liang Hong (Central south University, China)
The Study Of Spatio-Temporal Variation Of Impervious Surfaces For Dianci Basin Using TM Imagery From 2002 To 2009
8:50 Qingzu Luan (Climate Center of Beijing Meterological Bureau, China)
Vegetation Landscape Change Analysis Based On Remote Sensing In Northwest Of Beijing
9:10 Lei Ma (Nanjing University, China)
Using Unmanned Aerial Vehicle For Remote Sensing Application
9:30 Li Wang (Beijing Normal University, China)
Spatial Distribution Of Crofton Weeds In Southwest China With MODIS NDVI Of Long Time Series
9:50 Yu Deng (Yunnan Normal University, China)
Dynamic Monitoring Of Vegetation Coverage In Shangri-La County Of Northwest Yunnan Based On MODIS NDVI Data
10:10 Lei Niu (Henan University of Urban Construction, China)

An Automatic Solution Of Accessible Information Extraction From City GML LOD4 Files

## OS26[Room C]: Geo-ontology

Chair: Shanzhen Yi (Huazhong University of Science and Technology, China)

10:30 Shanzhen Yi (Huazhong University of Science and Technology, China) Upper Level Ontology And Integration Assessment Modeling In Digital Watershed

10:50 Leilei Ma (Information Engineering University, China) Expression And Application Of Geospatial Relation Ontology

11:10Xu Li (Henan University, China)

Tourism CO2 emissions measure and temporal and spatial differences study:

a Case of Henan Province in China

11:30Kai Liu (Henan University, China)

On The Impact of Granularity Of Time To Linear Topological Relations Between Geographical Events And Their Formalization

#### **OS27[Room D]: Statistics and application models of spatial data (1)**

**Co-Chairs:** Yongmei Lu (Texas State University, USA), Daoqin Tong (University of Arizona, USA)

8:30 Yongmei Lu (Texas State University, USA)
School Kids' Health Status By Physical Fitness: An Observation Of Texas Schools
8:50 Jiaogen Zhou (The Chinese Academy of Science, China)
A Spatial-Homogeneity-Based Interpolation Algorithm For Soil Properties
9:10 Shuming Bao (University of Michigan, USA)
Spatial Study Of Religion With Spatial Religion Explorer
9:30 Daoqin Tong (University of Arizona, USA)
Characterizing The Spatio-Temporal Patterns Of Framers' Market Visits
9:50 Qiuying Li (Chinese Academy of Sciences, China)
Study On Spatial-temporal Differences Of Measuring Urbanization Rate With Two Different Statistic Methods Of Shandong Province

#### OS28[Room D]: Statistics and application models of spatial data (2)

**Co-Chairs:** Bo Xu (California State University, USA), Lei Wang (Louisiana State University, USA)

10:30 Bo Xu (California State University, USA) Spatial Analysis Of Farming Viability And Its Contributing Factors In California

10:50 Lei Wang (Louisiana State University, USA) Population Loss Of New Orleans And Policy Inferences From Regression Models

11:10 Lan Mu (Peking University, China) A Weaving Method To Assemble And Analyze Tracking Data In Generalized Image Space

11:30 Jinming Zhang (Information Engineering University, China) Research On DEM Interpolation Algorithm Adaptability With Local Terrain Features

11:50 Shuaibin Liu (Henan University, China) The Analysis Of Relief Amplitude In Qinghai Province Based On GIS

#### **OS29**[Room E]: Theories and Algorithms in GIS (1)

**Co-Chairs**:Xianwei Wang (Sun Yat-sen University, China), Lihua Zhao (Department of Planning & Infrastructure , Sydney NSW, Australia)

8:30 Guiyun Zhou (University of Electronic Science and Technology of China, China) A Spatial Clustering Algorithm For Line Objects Based On Extended Hausdorff Distance

8:50 Yingru Li (Auburn University, USA) Residual Kriging For Spatial Prediction Of Air Temperature In The U.S.A

9:10 Haiwei He (Information Engineering University, China)

A New Road Network Selection Approach Based On The Importance Criteria Of Spatial Interactive Relationship

9:30 Wei Song (North China University of Water Resources and Electric Power, China) A Spatio-Temporal Cadastral Data Model Based On Space-Time Composite Model

9:50 Yong hong Wang (State Key Laboratory of Mathematical Engineering and Advanced Computing, China)

Research Of Matching Technique Based On Multi-scale Road Networks

#### **OS30**[Room E]: Theories and Algorithms in GIS (2)

**Co-Chairs:** Lihua Zhao (Department of Planning & Infrastructure , Sydney NSW, Australia), Xianwei Wang (Sun Yat-sen University, China)

10:30 Zhong Huang (Henan University, China) Top-Down Cluster Based Algorithm For Static R Tree Packing

10:50 Hu Shao (Peking University, China) Progressive Attribute Editing For Geological Interpretation Of Remote Sensing Images

11:10 Stanislav Popelka (Palacký University, Czech) Advanced Visibility Analyses And Visibility Evaluation Using Eye-tracking

11:30 Jianquan Cheng (Manchester Metropolitan University,UK) Accessibility Of Elderly People To Service Facilities A Case Study Of Wuhan City

11:50 Lin Wang (Peking University, China) Distributed Storage and Index of Vector Spatial Data Based on HBase

# June 22 (Afternoon 13:30-17:30)

#### OS31[Room A]: Geospatial data sharing and web services

Chair: Hongjie Xie (University of Texas at San Antonio, USA)

13:30 Xun Shi (Dartmouth College, USA)
Detecting Association Between A Disease And An Environmental Factor Using Localized T-test
13:50 Meng Zhou (Wuhan University, China)
A POI Data Update Approach Based On Weibo Check-in Data
14:10 Li Liu (Chinese Academy of Sciences, China)
A Model For Heterogeneous Quality Evaluation Of Geographic Web Service
14:30 Peiyuan Qiu (Chinese Academy of Sciences, China)
Extracting Traffic Information From Web Texts With A D-S Evidence Theory Based Approach
14:50 Minying Mo (Peking University, China)

A Computer-supported Cooperative Interpretation Working Framework

## OS32[Room A]: GIS in Environmental Modeling (1)

Chair: Hongjie Xie (University of Texas at San Antonio, USA)

15:30 Hongjie Xie (University of Texas at San Antonio, USA) Increased Mass Over Tibetan Plateau: From Lakes Or Glaciers

15:50 Gege Jiang (Peking University, China) GIS-based Rainfall-triggered Landslide Warning And Forecasting Model Of Shenzhen

16:10 Jiaxin Jin (Nanjing University, China) Detecting Responses Of Masson Pine To Acid Rain Based On Different Soil Conditions

16:30 Xi Wang (Henan University, China) Study For The Carbon Emission Influencing Factors Of Henan Province Based On LMDI Model

16:50 Lin Wang (Henan University, China) Bioremediation Of Eutrophicated Scenery Water By Alcaligenes Faecalis

## OS33[Room B]: GIS in Environmental Modeling (2)

**Co-Chairs:** Xuelian Meng (Louisiana State University, USA), Yong Zhao (Henan University, China)

13:30 Lijun Zhang (Henan University, China) Spatial differentiation of urban carbon emissions:An exploratory spatial data analysis in Beijing

13:50 Guiping Feng (Chinese Academy of Sciences, China)

Melting Of Ice-sheets In The Tian-Shan Mountains Observed By Satellite Gravity Measurements

14:10 Shoufen Wang (Tongji University, China) Assessment Of Vulnerability To Sea-level Rise For China's Coast

14:30 Zhangang Wang ( China University of Mining and Technolog, China) GML-based 3D Spatial Data Model For Geoscience Information In Coal Mines

14: 50 Ling Qin (Henan University, China)An Applied Research Of Small Watershed Soil Erosion Model In The Loess Plateau

## OS34[Room B]: GIS in Environmental Modeling (3)

**Co-Chairs:** Yong Zhao (Henan University, China), Xuelian Meng (Louisiana State University, USA)

15:30 Xuelian Meng (Louisiana State University, USA) The Land Dynamics At The Mississippi River Delta Front And Their Interactions With Natural Hazards And Wetland Conservation In A Coastal Environment With Fast Land Loss 15:50 Xiaoju Ning (Henan University, China)

Measurement The Low-carbon Level Of Residents' Daily Travel In Zhengzhou City

16:10 Fei Meng (Shandong Jianzhu University, China) The Characteristics Of Wetland Evolution In Nansi Lake Region

16:30 Jinping Zhang (Henan University, China) Spatial Heterogeneity Of Urban Residential Carbon Emissions In China

16:50 Tianqi Li (Henan University, China) A Study Of Gully Erosion Process In Rolling Hill Region Of Northeast China Based On GIS

# OS35[Room C]: Acquisition and Processing of Remotely Sensed Data (1)

Chair: Bo Xu (California State University, USA)

13:30 Shengyan Ding (Henan University, China) Analysis Of Spatial Heterogeneity Of Agricultural Landscape In The Lower Yellow River Plains Based On Characteristic Scale 13:50 Yuehu Liu (Peking University, China)

Massive Image Data Management Using HBase And Map Reduce

14:10 BiaoYang (Hohai University, China) A Novel Method For Camera Calibration Based On Micro Plane Grid

14:30 Jing Li (Chinese Academy of Sciences, China) Quality Assessment Of Building\_ Roof Segmentation From Airborne Lidar Data

14:50 Jianfeng Liu (Henan University, China) Extraction And Spatial Pattern Of Vegetation Cover Fraction Of Yiluo Basin

## OS36[Room C]: Acquisition and Processing of Remotely Sensed Data (2)

Chair: Changshan Wu (University of Wisconsin-Milwaukee, USA)

15:30 Fahui Wang (Louisiana State University, USA) Traffic Simulation And Validation In GIS

15:50 Yanan Wang (Northeast Normal University, China) Water Body Extraction From LANDSAT ETM+ Imagery Using MNDWI And K-T Transformation

16:10 Xingguang Wang (Peking University, China) A Distributed Spatial Data Integrated Management Prototype For Geological Applications

16:30 Heli Lu (Henan University, China) A Novel Approach To Assess And Monitor Forests For REDD

16:50 Changwei Wang (South China Agricultural University, China) Integrated Multi-temporal Remote Sensing Data To Estimate Biomas

#### OS37[Room D]: Acquisition and Processing of Remotely Sensed Data (3)

Chair: Changshan Wu (University of Wisconsin-Milwaukee, USA)

13:30 Changshan Wu (University of Wisconsin-Milwaukee, USA)

Incorporating Spatial Information Into Spectral Mixture Analysis For Mapping Impervious Surfaces

13:50 Xiaomin Ji (Nanjing University, China)

Sequential Edge Linking Method For Segmentation Of Remotely Sensed Imagery Based On Heuristic Search

14:10 Liang Chang (Chinese Academy of Sciences, China)

MODIS Infrared (IR) Water Vapor Calibration Model And Assessment

14:30 Xiwang Zhang (Henan University, China)

Research On Extraction Method Of Winter Wheat Phenology From Time Series Of MODIS NDVI Data

14:50Yan Chen(Sun Yat-sen University, China)

Analysis of lengths, water areas and volumes of the Three Gorges Reservoir at different water levels using Landsat images and SRTM DEM data

#### OS38[Room D]: Image Processing (1)

Chair: Heli Lu (Henan University, China)

15:30 Shujuan Sun ( China University of Petroleum, China) UAV Image Mosaic Based On Adaptive SIFT Algorithm

15:50 Xiaoping Wu (Chengdu University of Technology, China) Thin Cloud Removal Of ZY-3 Image Based On Improved Homomorphism Filtering Method

16:10 Lianjie Zhou (Wuhan University, China)

A Method Of Coupling With Multi-source Heterogeneous Remote Sensing Data System Based On SOS Web Service

16:30 Yaoping Cui (Henan University, China)

The Spatial Distribution Of Global Urban Heat Island Intensity And The Influence Of Urban Sprawl

16:50 Chenchao Xiao (Peking University, China) DEM-based Slope Unit Derivation

## OS39[Room E]: Image Processing (2)

Chair: Heli Lu (Henan University, China)

13:30 Zhaonan Wang (Peking University, China)

The Chang E-3 Landing And Working Area Selecting\_ Based On The Lunar Digital Terrain Model

13:50 Mengquan Wu (Ludong University, China)

Land Surface Temperature Retrieved Using MODIS Data In Shandong Province

14:10 Rui Liu (Chengdu University of Technology, China) Research On Detecting Ground Obstructions In Mountain Seismic Line Deployment

#### OS40[Room E]: BOD meeting

# June 23-25 Field Trip

- The Taihang Route: will end at Anyang around 1pm Jun 25. If you want to travel to other cities by train from Anyang, it is safe for you to buy ticket after 3pm. If you need to go to Zhengzhou for airplane or train, it is safe for you to purchase air/train ticket after 6pm, June 25. The travel agency will send you from Anyang to Zhengzhou.
- The Shaolin Route: will end at Luoyang around 1pm June 25. If you want to travel to other cities by train from Luoyang, it is safe for you to buy ticket after 3pm. If you need to go to Zhengzhou for airplane or train, it is safe for you to purchase air/train ticket after 6pm, June 25. The travel agency will send you from Luoyang to Zhengzhou.

## June 23

June

Morning call	6:00-6:10
Breakfast & Check out	6:30-7:00
Departing (tour bus)	7:00
25	
Zhengzhou City	16.30

Znengznou City	16:30
KaiFeng City	17:50