



10th International Symposium on Spatial Data Quality

(ISSDQ 2017)

Schedule

Sept 19-20, 2017, during ISPRS Geospatial Week 2017

Wuhan, Hubei, China

Website: <http://rsgis.whu.edu.cn/ISSDQ2017/>

ISSDQ is an important event in the field of spatial data quality, it has been successfully held nine research conferences every two years since 1999. ISSDQ 2017 will take place in Wuhan, Hubei, China, from 19th to 20th Sept 2017 organized by Wuhan University and International Society for Photogrammetry and Remote Sensing (ISPRS), specifically **ISPRS WG IV/3** and **ICWG III/IVb**. The main theme of the symposium is "Data Quality of Spatial Big Data". It will be also a part of the ISPRS Geospatial Week 2017 from 18th to 22nd Sept, 2017 in the same place, where a number of workshops and symposiums will be jointly held.

ISSDQ 2017 will bring together professionals, experts and young scientists in the relative domains from all over the world to present issues, standards, and the latest technical developments to manage aspects related to spatial big data quality. In total, we will have around 30 oral presentations, and three keynote talks by Prof. Peter M. Atkinson, Prof. Bob Haining and Prof. Jixian Zhang. We will also hold a panel discussion on the topic "Uncertainty in Spatial Big Data". It will be an exciting opportunity to share knowledge, exchange scientific ideas and results on topics of spatial data quality, and develop long-term research collaborations as well.



Organizing ISPRS Working Groups

ISPRS WG IV/3: Spatial Data Analysis, Statistics and Uncertainty Modelling

ISPRS ICWG III/IVb: Remote Sensing Data Quality

Organizing Committee

Wuhan University, ISPRS WG IV/3 and ICWG III/IVb.



Committee

Chair:

Wenzhong (John) Shi, The Hong Kong Polytechnic University / Wuhan University

Organization committee:

Binbin Lu, Wuhan University

Hussein M. Abdulmuttalib, Dubai Municipality, UAE

Mahmoud R. Delavar, University of Tehran, Iran

Jiangping Chen, Wuhan University

JingXiong Zhang, Wuhan University

Penglin Zhang, Wuhan University

Scientific Committee

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Alfred Stein, ITC, University of Twente, the Netherlands

Ana-Maria Olteanu-Raimond, Cartography and Geomatics Laboratory, IGN, France

Árpád Barsi, Budapest University of Technology and Economics, Hungary

Ashton Shortridge, Michigan State University, USA

Brian G Lees, The University of New South Wales, Australia

Cidalia Fonte, University of Coimbra, Portugal

Cyril de Runz, University of Reims Champagne-Ardenne, France

Deren Li, Wuhan University, China

Gerhard Navratil, Technical University of Vienna, Austria

Guoman Huang, Chinese Academy of Surveying and Mapping, China

Hussein M. Abdulmuttalib, Dubai Municipality, UAE

Jianya Gong, Wuhan University, China

Jingxiong Zhang, Wuhan University, China

Jixian Zhang, National Quality Inspection and Testing Center for Surveying and Mapping Products, China

Mahmoud R. Delavar, University of Tehran, Iran

Marco Minghini, GEOLab, Politecnico di Milano, Italy

Mir Abolfazl Mostafavi, Laval University, Canada

Nicholas Hamm, University of Twente, The Netherlands

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Robert Weibel, University of Zurich, Switzerland

Rodolphe Devillers, Memorial University of Newfoundland, Canada

Wenzhong Shi, The Hong Kong Polytechnic University, China

Xiaohua Tong, Tongji University, China

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Session Overview

Date	Time	Contents		Chair/Co-chair	Room
Tuesday 19 th , Sept. AM	09:00-10:30	Keynote Speech	Spatial precision and statistical precision: can we have the best of both worlds? <i>Bob Haining, University of Cambridge, United Kingdom</i>	Wenzhong Shi	QianJiang Hall
			National Surveying Mapping and Geoinformation Quality Management and Supervision System <i>Jixian ZHANG, National Quality inspection and Testing Center for Surveying and Mapping Products, China</i>		
	10:30-11:00	Tea Break			
	11:00-12:30	ISSDQ-01: Data Quality in Remote Sensing		Hussein Abdulmuttalib	QianJiang Hall
		ISSDQ-02: Uncertainty in Geographical and Environmental Analysis		Qingming Zhan	Moli Hall
Lunch					
Tuesday 19 th , Sept. PM	14:00-15:30	ISSDQ-03: Quality Assessment in Volunteered Geographic Information		Hong Shu	QianJiang Hall
		ISSDQ-04: Model-Based Approaches to Spatial Accuracy Assessment		Yong Ge	Moli Hall
	15:30-16:00	Tea Break			
	16:00-17:30	ISSDQ-05: Uncertainty in Spatial Big Data		Jixian Zhang	QianJiang Hall
ISSDQ-06: Spatial Data Quality and Decision Making		Mahmoud Reza Delavar	Moli Hall		
Dinner & Rest					
Wednesday 20 th , Sept. AM	09:00-10:30	ISSDQ-07: Uncertainty Propagation in Spatial Analytics		Penglin Zhang	QianJiang Hall
	10:30-11:00	Tea Break			
	11:00-12:00	Panel discussion	Topic: Uncertainty in Spatial Big Data Experts: <i>Bob Haining, Peter M. Atkinson, Jixian Zhang, Yong Ge, Hussein Abdulmuttalib, Mahmoud Reza Delavar, Wenzhong Shi</i>	Wenzhong Shi	QianJiang Hall
	12:00-12:30	Keynote Speech	Uncertainty in downscaling <i>Peter M. Atkinson, Lancaster University, United Kingdom</i>	Jingxiong Zhang	QianJiang Hall

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Lunch

ISSDQ-01: Data Quality in Remote Sensing

Chair: Hussein Abdulmuttalib

Room: QianJiang Hall

<p>11:00-12:30, Tuesday, 19th, Sept.</p>	<p>Title: Data Quality in Remote Sensing Authors: Carlo Batini (University of Milano-Bicocca, Italy), Thomas Blaschke, Stefan Lang, Florian Albrecht, Hussein Abdulmutalib, Arpad Barsi, György Szabo and Zsofia Kugler</p>
	<p>Title: REMOTE SENSING DATA QUALITY SUPPORT SYSTEMS Authors: Hussein Abdulmuttalib (Dubai Municipality, United Arab Emirates) and Maryam Almheiri</p>
	<p>Title: Image Quality of Optical Remote Sensing Data Authors: Ralf Reulke (HU-Berlin, Germany)</p>
	<p>Title: Hyperspectral Reconstruction and Broadband Reflection-Emission Separation Mechanism for Pixel Un-mixing and Target Recognition Authors: Yanbiao Sun (Chinese Academy of Surveying & Mapping, China), Xingbang Hu, Shuaiyang Zhao, Suihua Liu, Qingxi Tong, Helder Dennis and Lei Yan</p>
	<p>Title: A Mapping Method of Integrating Multi-scale River Thematic Maps Authors: Zhang Wen (Wuhan University, China), Yue Cuiying, Cui Changlu and Meng Lingkui</p>

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ISSDQ-02: Uncertainty in Geographical and Environmental Analysis

Chair: Qingming Zhan

Room: Moli Hall

11:00-12:30, Tuesday, 19 th , Sept.	<p>Title: The uncertainties on the GIS based land suitability assessment for urban and rural planning</p> <p>Authors: Huimin Liu (Wuhan University, China), and Qingming Zhan</p>
	<p>Title: Does Quality Control Matter? A Revisit of Surface Urban Heat Island Intensity estimated by Satellite-derived Land Surface Temperature Products</p> <p>Authors: Lai Jiameng (Nanjing University, China), Zhan Wenfeng and Huang Fan</p>
	<p>Title: SEMANTIC TOPOLOGICAL RELATION-BASED INCONSISTENCY DETECTION FOR LAND COVER DATA QUALITY CONTROL</p> <p>Authors: Shun Kang (National Geomatics Center of China, China), Jun Chen and Shu Peng</p>
	<p>Title:</p> <p>Authors: Lu Jiang (Nanjing University, China), Wenfeng Zhan</p>
	<p>Title: A LANDSCAPE SHAPE INDEX-BASED POWER ALLOCATION APPROACH FOR LAND COVER ACCURACY ASSESSMENT</p> <p>Authors: Chen Fei (National Geomatics Center of China, China)</p>

ISSDQ-03: Quality Assessment in Volunteered Geographic Information

Chair: Hong Shu

Room: QianJiang Hall

14:00-15:30, Tuesday, 19 th , Sept.	<p>Title: An comprehensive assessment model for the quality of volunteered geographic information</p> <p>Authors: Die Zhang (Institute of Geographical Sciences and Natural Resources Research, Chinese Academy of Sciences, China), Yong Ge and Xian Guo</p>
	<p>Title: CONTROL OF THEMATIC ACCURACY ALLOWING LIMITED MIXTURES BETWEEN CLASSES</p> <p>Authors: Jos é Rodríguez-Avi (University of Ja én, Spain), Francisco Javier Ariza-López and Mar á Virtudes Alba-Fern ández</p>
	<p>Title: Assessing the Completeness of OpenStreetMap Road Data by Comparing Urban Road Types Between China and England</p> <p>Authors: Shuxin Hao (China University of Geosciences, China), Sijia Qian and Qi Zhou</p>
	<p>Title: Visualizing the Quality of Vector Features – A Proposal for Cadastral Maps</p> <p>Authors: Gerhard Navratil (TU Vienna, Austria) and Vera Leopoldseder</p>
	<p>Title: OSM POI ANALYZER: A PLATFORM FOR ASSESSING POSITION OF POIs IN OPENSTREETMAP</p> <p>Authors: Alireza Kashian (University of Melbourne, Australia), Abbas Rajabifard, Yiqun Chen and Kai-Florian Richter</p>

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ISSDQ-04: Model-Based Approaches to Spatial Accuracy Assessment

Chair: Yong Ge

Room: Moli Hall

14:00-15:30, Tuesday, 19th, Sept.	<p>Title: Orthorectification: more control points and less quality or less control points and high quality?</p> <p>Authors: Yong Ge (Institute of Geographical Sciences and Natural Resources Research, Chinese Academy of Sciences, China) and Xian Guo</p>
	<p>Title: TSUNAMI RISK ASSESSMENT MODELLING IN CHABAHAR PORT, IRAN</p> <p>Authors: Mahmoud Reza Delavar (University of Tehran, Iran), Hosein Mohammadi, Mohammad Ali Sharifi and Moharram Dolatshahi Pirooz</p>
	<p>Title: Trust theory and method framework of mine geohazard monitoring data computing of geosensor network</p> <p>Authors: Zhang Jin (Taiyuan University of Technology, China)</p>
	<p>Title: ASSESSING THE AGREEMENT BETWEEN EO-BASED SEMI-AUTOMATED LANDSLIDE MAPS WITH FUZZY MANUAL LANDSLIDE DELINEATION</p> <p>Authors: Florian Albrecht (Salzburg University, Austria), Daniel Höbling and Barbara Friedl</p>
	<p>Title: A New Plane Geometric Fitting Algorithm Based On Data Least Squares</p> <p>Authors: Wei Xiang (Changjiang Institute of Survey, Planning, Design and Research, China) and Zhijuan Shen</p>

ISSDQ-05: Uncertainty in Spatial Big Data

Chair: Jixian Zhang

Room: QianJiang Hall

16:00-17:30, Tuesday, 19th, Sept.	<p>Title: COMPREHENSIVE COMPARISON OF TWO IMAGE-BASED POINT CLOUDS FROM AERIAL PHOTOS WITH AIRBORNE LIDAR FOR LARGE-SCALE MAPPING</p> <p>Authors: Elyta Widyaningrum (Delft University of Technology, the Netherland) and Ben Gorte</p>
	<p>Title: Error Metric Model for 3D Point Cloud Reconstruction Based on Binocular Vision</p> <p>Authors: Bian Yuxia (Chengdu University of Information Technology, China)</p>
	<p>Title: SHADOW DETECTION FROM VHR AERIAL IMAGES IN URBAN AREA BY USING 3D CITY MODELS AND a DECISION FUSION APPROACH</p> <p>Authors: Kaixuan Zhou (Delft University of Technology, the Netherland) and Ben Gorte</p>
	<p>Title: BDS/GPS Integrated Positioning Method Research Based on Nonlinear Kalman Filtering</p> <p>Authors: Ma Yan (China Academy of Civil Aviation Science and Technology, China), Yuan Weilin and Huabo Sun</p>
	<p>Title: ERROR SOURCES IN PROCCESING LIDAR BASED BRIDGE INSPECTION</p>



	Authors: Haitao Bian (Jiangsu University of Science and Technology, China), Shen-En Chen and Wanqiu Liu
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ISSDQ-06: Spatial Data Quality and Decision Making

	Chair: Mahmoud Reza Delavar	Room: Moli Hall
16:00-17:30, Tuesday, 19th, Sept.	Title: PHYSICAL SEISMIC VULNERABILITY ASSESSMENT OF TEHRAN USING THE INTEGRATION OF GRANULAR COMPUTING AND INTERVAL DEMPSTER- SHAFER Authors: Mahmoud Reza Delavar (University of Tehran, Iran), Milad Bahrami and Mahdi Zare	
	Title: Integrated Quality Evaluation of the In-situ Networking Measurements and Upscaling Using Gaussian Process Regression Authors: Gaofei Yin (Institute of Mountain Hazards and Environment, Chinese Academy of Sciences, China) and Ainong Li	
	Title: PERFORMANCE EVALUATION OF THREE DIFFERENT HIGH RESOLUTION SATELLITE IMAGES IN SEMI-AUTOMATIC URBAN ILLEGAL BUILDING DETECTION Authors: Nima Khalilimoghadam (University of Tehran, Iran), Mahmoud Reza Delavar and Pirouz Hanachi	
	Title: THE ROLE OF VENEZUELAN SPACE TECHNOLOGY IN PROMOTING DEVELOPMENT IN LATIN AMERICA Authors: Jose Pena (BEIHANG UNIVERSITY, China) and Tan Yumin	
	Title: ELEVATION-BASED SEA-LEVEL RISE VULNERABILITY ASSESSMENT OF MINDANAO, PHILIPPINES: ARE FREELY-AVAILABLE 30-M DEMS GOOD ENOUGH? Authors: Jojene Santillan (Caraga State University, Philippines) and Meriam Makinano-Santillan	

ISSDQ-07: Uncertainty Propagation in Spatial Analytics

	Chair: Penglin Zhang	Room: QianJiang Hall
09:00-10:30 Wednesday, 20 th , Sept.	Title: FORMALLY EXPLORING THE RELIABILITY OF SPATIAL DATA ANALYTICS Authors: Hong Shu (Wuhan University, China), Wenzhong Shi and Jiangping Chen	
	Title: A reliable classification solution based on uncertainty controlling for high resolution remote sensing image Authors: Penglin Zhang (Wuhan University, China) and Qi Zhang	
	Title: The Urban Land Surface Thermal Environment Dynamics and Planning Optimization Recommendations Under Uncertainty Authors: Huimin Liu (Wuhan University, China), Qingming Zhan and Jiong Wang	



Title: INFLUENCE OF UNCERTAINTY IN ATTRIBUTE DISCRETE MAPPING IN ASSOCIATION RULES MINING

Authors: Jiangping Chen (Wuhan University, China), Wanshu Feng, Hong Shu and Wenzhong Shi

Title: ROI-Orientated Sensor Correction Based on Virtual Steady Reimaging Model for Wide Swath High Resolution Optical Satellite Imagery

Authors: Ying Zhu (Wuhan University, China), Shuying Jin, Yuan Tian and Mi Wang