Chinese Society for Geodesy, Photogrammetry and Cartography

Prof. László Zentai
Secretary General
International Cartographic Association (ICA)

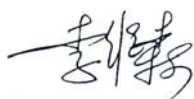March 18, 2015

Dear Prof. Zentai,

Nomination of Prof. Dr. LIU Yaolin for ICA Vice President 2015-2019

I am writing, on behalf of the Chinese Society for Geodesy, Photogrammetry and Cartography (CSGPC), to nominate Prof. Dr. LIU Yaolin as a candidate for ICA Vice President 2015-2019.

Prof. LIU works as Chair Professor of GIS, Director of Ministry-of-Education Key Laboratory of GIS, and Dean of School of Resources and Environmental Sciences at Wuhan University, China. He is an outstanding scholar in the field of GIS and cartography, active in national and international professional societies. With his experience of working as ICA Vice President for 2011-2015, we believe that Prof. Liu will surely be able to continue his contribution to the development of ICA and the profession.

Attached please find Prof. Liu's indication of willingness to serve and his CV. We appreciate the support from the ICA Executive Committee and national members to our nomination.

Sincerely yours,

LI Weisen
President
Chinese Society for Geodesy, Photogrammetry and Cartography

Dear ICA members,

As the incumbent Vice President of the ICA, I feel very privileged to be nominated for re-election and have the chance to continue my service to the ICA. If re-elected, I will continue my dedication to the development of the association as well as the progress of our beloved profession.

In my many past capacities within the association, I having been devoting myself to the missions and goals of the International Cartographic Association. My long association and dedicated service to the association and experience in the local, regional, and international academic and professional communities should be useful to the works of the ICA.

I am a leading GIS and cartography researcher in China, having published more 100 articles in reputation journals and won three prestigious National Award of Science and Technology Progress of China. I have rich experiences in international academic exchanges, including my past efforts in organizing 10+ international conferences/workshops as well as my current role as the Vice President of Chinese Society of Geodesy, Photogrammetry and Cartography, and Vice President of International Council for Science (ICSU) – China.

I look forward to serving the ICA. Thank you very much for your kind considerations.

Yaolin Liu

In order to facilitate the casting of your vote for the Vice President of the ICA, below is my short bio:

Yaolin Liu is currently Chair Professor of GIS, Director of Ministry-of-Education Key Laboratory of GIS, and Dean of School of Resources and Environmental Sciences at Wuhan University, China. I holds Bachelor's and Master's degrees from The Chinese University of Geosciences and a PhD from Wageningen University in the Netherlands. I am a leading GIS and cartography researcher in China, having published more 100 articles in leading journals and won amongst others three prestigious National Award of Science and Technology Progress of China. I have served as the Associate Director of International Journal of Applied Earth Observation and Geoinformation, and am currently serving on the editorial boards of a number of reputable journals.

I have served in many committees and working groups of the ICA and other international academic and professional associations. At present, I am the Vice President of the ICA, overseeing commissions on Cartography in Early Warning and Crisis Management，Commission on Mapping from Remote Sensor Imagery and Commission on Geospatial Analysis and Modeling. My other capacity includes the Vice President of Chinese Society of Geodesy, Photogrammetry and Cartography, Vice President of International Council for Science (ICSU) – China, as well as council member and co-director of technical committee for China Association for Geographic Information System, The Geographical Society of China, and China Land Science Society.

Dr. Yaolin Liu

CONTACTS

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129 Luoyu Road, Wuhan, China 430079
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ACADEMIC SPECIALTY

Geographic Information Science and System, Multi-scale representation and generalization, Geographic data mining and spatial analysis, Land information system , land evaluation modelling and Spatial decision-making

EDUCATION

- Ph.D., Geographic Information Science, Wageningen University and ITC, the Netherlands 2002
- M.S., Remote Sensing, Wuhan Technical University of Surveying and Mapping, China 1988
- B.S., Geography, China University of Geosciences, China 1982

PRESENT POSITIONS

- Cheung Kong Chair Professor of Geographic Information Science, Wuhan University
- Luojia Chair Professor of Geographic Information, Wuhan University
- Dean, School of Resources and Environmental Science, Wuhan University
- Director, Key Laboratory of Geographic Information System , Ministry of Education of China.
- Director, Key Laboratory of Digital Mapping and Land Information Engineering, State Bureau of Surveying and Mapping, China
- Member, State Disciplinary Review Group, Academic Degrees Committee of the State Council of China

OTHER POSITIONS HELD

- Dean and Professor, School of Land Science, Wuhan Technical University of Surveying and Mapping (1994-2000)
- Chair and Associate Professor, Department of Cartography, Wuhan Technical University of Surveying and Mapping (1992.10-1994.9)
- Assistant Professor, Department of Cartography, Wuhan College of Surveying and Mapping (1987-1992)
- Lecturer, Department of Cartography, Wuhan College of Surveying and Mapping (1982-1987)
- Visiting Scholar,ITC, The Netherlands (1988.9-1989.9)

- Senior Visiting Scholar, Wageningen University, the Netherlands (1996.4-1996.10)
- Visiting Professor, ITC, The Netherlands, (2007.10)
- Visiting Professor, The Hong Kong Polytechnic University, (2004.4-2004.6)
- Visiting Professor, Texas State University, (2008.10-2008.11)

AWARDS, HONORS, AND PROFESSIONAL RECOGNITIONS

- 2014. National Progress Award of GIScience (Grade I) for research excellence in spatial optimization
- 2013. National Progress Award of GIScience (Grade I) for research excellence in land use monitoring system
- 2012. National Grade II Award of Science and Technology Progress for research excellence in automated land evaluation system and its applications.
- 2010. National Grade II Award of Science and Technology Progress for research excellence in spatial-temporal data mining and its application.
- 2010. "Outstanding Scientific Researcher" awarded by the State Ministry of Science and Technology, China.
- 2010. Grand Prize for outstanding teachers awarded by Bao Steel Company, China.
- 2010. Member of National Outstanding Teaching Team
- 2009. Grade II Prize of Science and Technology Progress awarded by the State Ministry of Education for land evaluation theory and modeling and application.
- 2008. Grade I Prize of Science and Technology Progress awarded by the State Bureau of Survey and Mapping, China for research excellence in spatial data mining and application.
- 2008. National Excellent Textbook for a textbook on geographic information system.
- 2008. Best paper of Asia Association of Geographic Information System.
- 2008. National Excellent Course on Land Information System.
- 2007. Grade II Prize of Science and Technology Progress awarded by the State Ministry of Land Resource, China for research excellence in arable land evaluation.
- 2006. Grade II Prize of National Excellent Atlas for compiling atlas of urban development of Baoan county, China.
- 2006. Grade I Prize of Science and Technology Progress awarded by the State Ministry of Land Resource, China for urban land evaluation information system.
- 2005. Hubei province Teaching Achievement Award for constructing on a series of courses on land information.
- 2005. National Grade II Prize of Science and Technology Progress for research excellence in geographic data generalization and its application.
- 2004. Grade I Prize of Science and Technology Progress awarded by the State Bureau of Survey and Mapping, China for research excellence technologies on spatial data generalization.
- 2004. National Excellent Textbook for a textbook on land information system.

- 2003. Trans-Century Training Programme Foundation for the Talents by the State Education Commission.
- 2001. National Teaching Achievement Award for construction and practice of a series of courses of geographic information system.
- 1997. National Talents of "New Century Hundred-Thousand-Ten Thousand Talent Project"
- 1995. National Excellent Course on Geographic Information System.
- 1995 Trans-Century Training Programme Foundation for the Talents awarded by the State Bureau of Survey and Mapping, China.

PROFESSIONAL ACTIVITIES

Editorial Boards

- Editorial board, International Journal of Applied Earth Observation and Geoinformation
- Editorial board, Acta Geodaetica et Cartographica Sinica
- Editorial board, Bulletin of Surveying and Mapping
- Editorial board, Journal of Geomatics
- Editorial board, Science of Surveying and Mapping
- Editorial board, Geomatics and Information Science of Wuhan University
- Editorial board, China Land Science

Professional Organizations

- Vice President, International Cartographic Association
- Vice President, Chinese Society of Geodesy, Photogrammetry and Cartograpphy
- Vice President, International Council for Science (ICSU) - China
- Council member and co-director of technical committee, Chinese Society for Geodesy, Photogrammetry, and Cartography.
- Council member and co-director of technical committee, China Association for Geographic Information System.
- Council member and co-director of technical committee, The Geographical Society of China
- Council member and co-director of technical committee, China Land Science Society

Meeting Organization Activities

- Chair, 20013, International Symposium on cartography for early warning and crisis management
- Chair, 2009, International Symposium on Spatial Analysis, Spatial-Temporal Data Modeling and Data Mining (ISSA 2009)
- Co-Chair, 2008, The 10th Annual Meeting of China Association for Science and Technology
- Member of Program Committee, Spatial Data Handling, Canada, 2014,

- Member of Steering Committee, 2013, Natioanl Conference on Cartography of China
- Member of Steering Committee, 2012, National Conference on Geodesy, Photogrammtry and Cartography
- Member of Program Committee, 2010, The 18th International Conference of Geoinformatics
- Member of program of committee, 2010, Joint International Conference on Theory, Data Handling and Modelling in GeoSpatial Information Science
- Member of program committee, 2009, International Workshop on Quality, Scale and Analysis Aspects of City Models
- Member of Program Committee, 2008, The 16th International Conference of Geoinformatics
- Member of program Committee, 2011, The 19th International Conference of Geoinformatics
- Member of Program Committee, 2007, The 15th International Conference of Geoinformatics
- Chair, 2006, The 6th Seminar on Cartography and GIS of China.
- Co-chair, 2005, International Symposium on Spatio-temporal Modeling, Spatial Reasoning, Analysis, Data Mining and Data Fusion

SELECTED GRANTS FROM CENTRAL GOVERNMENT OF CHINA

- 2013-2017. National Atlas of China, supported by National Ministry of Science and Technology of China.
- 2014-2015. Statistical analysis of national condition survey, supported by National Administration of Surveying, Mapping and Geo-information of China.
- 2014-2016. Modeling and simulating land use spatial optimization, supported by National Natural Science Foundation of China.
- 2010-2013. Advanced geocomputation, supported by the National High Technology Research and Development Program of China.
- 2010-2012. Spatial decision supporting systems, supported by Science Foundation of Ministry of Education of China
- 2007-2010. Techniques for land analysis and evaluation, supported by Key Projects in the National Science & Technology Pillar Program during the Eleventh Five-Year Plan Period.
- 2007-2010. Ontology-based geographic database generalization, supported by the National Natural Science Foundation of China.
- 2007-2010. Models and techniques for geographic data mining, supported by the National High Technology Research and Development Program of China.
- 2006-2009. Environmental data analysis and simulations, supported by the Special Foundation for State Major Basic Research Program of China.
- 2009. Digital terrain representation and analysis in the National Western China Mapping Project, supported by State Bureau of Surveying and Mapping of China.
- 2009. Software for land use data generalization, supported by State Ministry of Land and Resources of China

- 2008. Synergies of GIS and digital mapping, supported by State Bureau of Surveying and Mapping of China.
- 2008. Standards of land use database generalization, supported by State Ministry of Land and Resources of China
- 2003-2006. Geographic database generalization based on Agents technology, supported by the National Natural Science Foundation of China.
- 2006. Development of software for conflict-detection and efficient mapping based on spatial data visualization, supported by State Bureau of Surveying and Mapping of China.
- 2005-2006. Spatial-temporal simulations of urban and rural changes in China, supported by Science Foundation of Ministry of Education of China
- 2006. Standards of visualization of land use evaluation, supported by State Ministry of Land and Resources of China
- 2006. Quality assessment of land use data, supported by State Ministry of Land and Resources of China

SELECTED PUBLICATIONS
Monographs and Edited books

- **Liu, Y.L.**, & Jiao, L.M. (2008). Land Evaluation: Theories, Methods, and System Development. Science Press.
- **Liu, Y.L.**, & He, J.H. (2007). Land Information Science.Science Press.
- Tang, X.M., **Liu, Y.L.**, Zhang, J.X., & Kainz, W. (2007). Advances in Spatio-Temporal Analysis. Taylor & Francis.
- **Liu, Y.L.** (2006) Environmental Information System. Science Press.
- **Liu, Y.L.** (2005). Land Information System. China Agricultural Press.
- **Liu, Y.L.** (2004). Geographic Information System. China Agricultural Press.

Journal Articles

Kong X.**, Liu, Y.,** Liu X., Chen Y. & Liu D.. Thematic maps for land consolidation planning in Hubei Province, China. Journal of Maps, 10(1) : 26-34, 2014

Liu Y., Tan R., Zhou K., Cui J., Yuan M.. Maps for the reclamation of industrial and mining wasteland in Daye County, Hubei province, China. Journal of Maps, 10(1) : 9-17, 2014

Zhou Kehao, **Liu Yaolin,** Tan Ronghui. Urban dynamics, landscape ecological security, and policy implications: A case study from the Wuhan area of central China, Cities, 2014

Xia Yin, Liu Dianfeng, **Liu Yaolin,** Alternative Zoning Scenarios for Regional Sustainable Land Use Controls in China: A Knowledge-Based Multiobjective Optimisation Model, INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH, 2014

Liu Yaolin, Jiang Qinghu, Shi Tiezhu**.** Prediction of total nitrogen in cropland soil at different levels of soil moisture with Vis/NIR spectroscopy, ACTA AGRICULTURAE SCANDINAVICA SECTION B-SOIL AND PLANT SCIENCE, 2014

Zeng Chen，**Liu Yaolin，** Liu Yanfang, Urban sprawl and related problems: Bibliometric analysis and refined analysis from 1991 to 2011, CHINESE

GEOGRAPHICAL SCIENCE, 2014

Shi, Tiezhu，Chen, Yiyun，**Liu, Yaolin,** Visible and near-infrared reflectance spectroscopy-An alternative for monitoring soil contamination by heavy metals, JOURNAL OF HAZARDOUS MATERIALS, 2014

Yuan, Man，**Liu, Yaolin**，He, Jianhua, Regional land-use allocation using a coupled MAS and GA model: from local simulation to global optimization, a case study in Caidian District, Wuhan, China, CARTOGRAPHY AND GEOGRAPHIC INFORMATION SCIENCE, 2014

Liu, Dianfeng，**Liu, Yaolin**，Wang, Mingze, Multiobjective Network Optimization for Soil Monitoring of the Loess Hilly Region in China, DISCRETE DYNAMICS IN NATURE AND SOCIETY, 2014

Liu, Yaolin，Kong, Xuesong，Liu, Yanfang, Simulating the Conversion of Rural Settlements to Town Land Based on Multi-Agent Systems and Cellular Automata, PLOS ONE, 2013

Liu, Xingjian，Derudder, Ben，**Liu, Yaolin,** A stochastic actor-based modelling of the evolution of an intercity corporate network, ENVIRONMENT AND PLANNING A , 2103

Shen, Huanfeng，Wu, Penghai，**Liu, Yaolin,** A spatial and temporal reflectance fusion model considering sensor observation differences, INTERNATIONAL JOURNAL OF REMOTE SENSING, 2013

Liu, Zhongqiu，**Liu, Yaolin**，Guo, Yangjie, Progress in global parallel computing research: a bibliometric approach, SCIENTOMETRICS, 2013

Liu Yaolin, Wen Cheng, Liu Xingjian. China's Food Security Soiled by Contamination, Science,2013, 339(6126):1382-1383

Liu Yaolin, Jiao Limin. A self-adapting fuzzy inference system for the evaluation of agricultural land，Environmental Modelling & Software，2013, 40:226-234

He J.，**Liu Y.,** Yu Y., Tang W., Xiang W., Liu D., A counterfactual scenario simulation approach for assessing the impact of farmland preservation policies on urban sprawl and food security in a major grain-producing area of China. Applied Geography, 37:127-138, 2013

Jiao Limin, **Liu Yaolin,,**Analyzing the effects of scale and land use pattern metrics on land use database generalization indices，**I**nternational Journal of Applied Earth Observation and Geoinformation，2011

Liu Yaolin, Liu Dianfeng，Rural land use spatial allocation in the semiarid loess hilly area in China: Using a Particle Swarm Optimization model equipped with multi-objective optimization techniques，SCIENCE CHINA Earth Sciences，2012

Liu Yaolin, Wang Hua，Land Use Zoning at the County Level Based on a Multi-Objective Particle Swarm Optimization Algorithm: A Case Study from Yicheng, China，INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH, 2012

Liu Yaolin, Wu Jian, Application of Hyperion data to land degradation mapping in the Hengshan region of China，International Journal of Remote Sensing, 2010

Jiao limin, **Liu Yaolin,** Characterizing land-use classes in remote sensing imagery by shape metrics，ISPRS JOURNAL OF PHOTOGRAMMETRY AND REMOTE SENSING，2012

Liu, Y.L., Chen, H., Wu, G.F., & Wu, X.G. (2010). Feasibility of estimating heavy metal concentrations in Phragmites australis using laboratory-based hyperspectral data-A case study along Le'an River, China. International Journal of Applied Earth

Observation and Geoinformation, 12, S166-S170

Liu, Y.L., Fei, T., Bian, M., & Corsi, F. (2010). Assessment of underwater light climate for Lake Dahuchi using field spectral data and Landsat TM. International Journal of Remote Sensing, 31, 1625-1643

Liu, Y.L., Zheng, B., Turkstra, J., & Huang, L.N. (2010). A hedonic model comparison for residential land value analysis. International Journal of Applied Earth Observation and Geoinformation, 12, S181-S193

Wu, J.A., **Liu, Y.L.**, Wang, J., & He, T. (2010). Application of Hyperion data to land degradation mapping in the Hengshan region of China. International Journal of Remote Sensing, 31, 5145-5161

Jiao, L.M., & **Liu, Y.L.** (2010). Geographic Field Model based hedonic valuation of urban open spaces in Wuhan, China. Landscape and Urban Planning, 98, 47-55

Shen, H.F., **Liu, Y.L.**, Ai, T.H., Wang, Y., & Wu, B. (2010). Universal reconstruction method for radiometric quality improvement of remote sensing images. International Journal of Applied Earth Observation and Geoinformation, 12, 278-286

Wang, H.B., Zhang, T., Tang, X.M., & **Liu, Y.L.** (2010). Building a Dynamic, Large-Scale Spatio-temporal Vector Database to Support a National Spatial Data Infrastructure in China. Giscience & Remote Sensing, 47, 135-162

Cui, L.J., Wu, G.F., & **Liu, Y.L.** (2009). Monitoring the impact of backflow and dredging on water clarity using MODIS images of Poyang Lake, China, Hydrological Processes, 23, 342-350

Liu, Y.L., & Jiao, L.M. (2009). Landuse data generalization indices based on scale and landscape pattern, Acta Geodaetica et Cartographica Sinica, 38, 549-555

Xiong, H, **Liu, Y.L.**, Che, S.S., & Zhang, J.F. (2009). Land use change simulation model based on support vector machine, Geomatics and Information Science of Wuhan University, 34, 366-369

Wu, G.F., de Leeuw, J., & **Liu, Y.L.** (2009). Understanding Seasonal Water Clarity Dynamics of Lake Dahuchi from In Situ and Remote Sensing Data. Water Resources Management, 23, 1849-1861

Wu, G.F., de Leeuw, J., Skidmore, A.K., **Liu, Y.L.**, & Prins, H.H.T. (2009). Performance of Landsat TM in ship detection in turbid waters. International Journal of Applied Earth Observation and Geoinformation, 11, 54-61

Wu, G.F., de Leeuw, J., Skidmore, A.K., Prins, H.H.T., Best, E.P.H., & **Liu, Y.L.** (2009). Will the Three Gorges Dam affect the underwater light climate of Vallisneria spiralis L. and food habitat of Siberian crane in Poyang Lake? Hydrobiologia, 623, 213-222

Liu, Y.L., He, J.H., Yu, Y., & Tang, X.M. (2008). Indeterminate direction relation model based on fuzzy description framework. Science in China Series E-Technological Sciences, 51, 72-80

Wu, G.F., De Leeuw, J., Skidmore, A.K., Prins, H.H.T., & **Liu, Y.L.** (2008). Comparison of MODIS and landsat TM5 images for mapping tempo-spatial dynamics of Secchi disk depths in Poyang Lake National Nature Reserve, China. International Journal of Remote Sensing, 29, 2183-2198

Fan, M., **Liu, Y.L.**, Wu, Y.J., & Yang, X.Y. (2008) Ecological impact evaluation for land consolidation based on cloud model, Geomatics and Information Science of Wuhan University, 33, 86-989.

He, Jianhua; **Liu, Yaolin**; Yu, Yan, Fuzzy description model for uncertain direction relation, Geomatics and Information Science of Wuhan University, v 33, p 257-260, 2008

Luo, Zhijun; Zhao, Xiaomin; **Liu, Yaolin**, Dynamic monitoring of vegetation fraction

based on remote sensing in Three Gorge area, Transactions of the Chinese Society of Agricultural Engineering, v 24, p 57-60, 2008

Wu, Guofeng; De Leeuw, Jan; Skidmore, Andrew; Prins, Herbert; **Liu, Yaolin**, Comparison of MODIS and Landsat TM5 images for mapping tempo-spatial dynamics of Secchi disk depths in Poyang Lake National Nature Reserve, China, International Journal of Remote Sensing, v 29, p 2183-2198, 2008

Jiao, Limin; **Liu, Yaolin**; Ren, Zhouqiao, Spatial points clustering based on self-organizing neural networks and its application, Geomatics and Information Science of Wuhan University, v 33, p 168-171, 2008

Liu, YaoLin; He, JianHua; Yu, Yan; Tang, XinMing, Indeterminate direction relation model based on fuzzy description framework, Science in China, Series E: Technological Sciences, v 51, p 72-80, 2008

Hu, Shiyuan; Li, Deren; **Liu, Yaolin**, A new land price evaluation method based on cloud model, Geomatics and Information Science of Wuhan University, v 33, p 982-985, 2008

Liu, Yaolin; Ren, Zhouqiao; Lue, Xiaoman; Jiao, Limin, Knowledge-based decision support system for site selecting, Geomatics and Information Science of Wuhan University, v 33, p 149-152, 2008

Wu, G.F., **Liu, Y.L.**, & Wang, T.J. (2007b). Methods and strategy for modeling daily global solar radiation with measured meteorological data - A case study in Nanchang station, China. Energy Conversion and Management, 48, 2447-2452

Zhao, Xi; **Liu, Yaolin**; Liu, Yanfang, Benefit of cultivated land utilization in Hubei Province, Geomatics and Information Science of Wuhan University, v 32, p 1168-1171, 2007

Wu, Guofeng; de Leeuw, Jan; Skidmore, Andrew K.; Prins, , Herbert H.T.; **Liu, Yaolin**, Concurrent monitoring of vessels and water turbidity enhances the strength of evidence in remotely sensed dredging impact assessment, Water Research, v 41, p 3271-3280, 2007

Yang, Guoqing; **Liu, Yaolin**; Wu, Zhifeng, Analysis and simulation of land-use temporal and spatial pattern based on CA-Markov model, Geomatics and Information Science of Wuhan University, v 32, p 414-418, 2007

Hu, Shiyuan; Li, Deren; **Liu, Yaolin**, Disposition of dynamic monitoring points of urban land price based on digital land price model, Geomatics and Information Science of Wuhan University, v 32, p 838-841, 2007

Wu, Guofeng; **Liu, Yaolin**; Wang, Tiejun, Methods and strategy for modeling daily global solar radiation with measured meteorological data - A case study in Nanchang station, China, Energy Conversion and Management, v 48, p 2447-2452, 2007

Lei, Qihong; **Liu, Yaolin**; Yin, Zhangcai; He, Jianhua, Spatio-temporal data model in cadastral information system based on weighted graph, Geomatics and Information Science of Wuhan University, v 31, p 640-642, 2006

Liu, Yaolin; Luo, Zhijun, Study on quantitative monitoring soil loss in small watershed base on GIS and RS, Geomatics and Information Science of Wuhan University, v 31, p 35-38, 2006

Hu, Shiyuan; Li, Deren; **Liu, Yaolin**; Li, Deyi, Mining weights of land evaluation factors based on cloud model and correlation analysis, Geomatics and Information Science of Wuhan University, v 31, p 423-427, 2006

Jia, Zelu; **Liu, Yaolin**; Zhang, Tong, Design and development of system based on visual interactive spatial data mining, Geomatics and Information Science of Wuhan University, v 31, p 916-919, 2006

Ma, Chenyan; **Liu, Yaolin**, Map visual art oriented by structuralism and

deconstruction of symbol philosophy, Geomatics and Information Science of Wuhan University, v 31, p 552-556, 2006

He, Jianhua; **Liu, Yaolin**, Formalized description of indeterminate geographic object based on fuzzy degree, Geomatics and Information Science of Wuhan University, v 30, p 341-344, 2005

Gong, Jian; **Liu, Yaolin**, General land use planning based on SD-MOP integrated model, Geomatics and Information Science of Wuhan University, v 30, p 322-325, 2005

Liu, Yaolin; Jiao, Limin, Model of land suitability evaluation based on computational intelligence, Geomatics and Information Science of Wuhan University, v 30, p 283-287, 2005

Miao, Zuohua; **Liu, Yaolin**; Wang, Haijun, Fuzzy-Markov chain model with weights for prediction of cultivated land demand, Geomatics and Information Science of Wuhan University, v 30, p 305-308, 2005

Liu, Yaolin; Liu, Yanfang; Zhang, Yumei, Prediction of gross arable land based on grey-Markov model, Geomatics and Information Science of Wuhan University, v 29, p 575, 2004

Liu, Yaolin; Liu, Yanfang; Ming, Dongping, Urban expansion model based on cellular automata of decision-making with grey situation, Geomatics and Information Science of Wuhan University, v 29, p 7, 2004

Liu, Yaolin; Liu, Yanfang; Zhang, Yumei, Prediction of gross arable land based on grey-Markov model, Geomatics and Information Science of Wuhan University, v 29, p 575, 2004

Liu, Yaolin; Fu, Peihong, Kriging analysis and its application to urban base land-value evaluation, Geomatics and Information Science of Wuhan University, v 29, p 471, 2004

Jiao, Limin; **Liu, Yaolin**, Application of fuzzy neural networks to land suitability evaluation, Geomatics and Information Science of Wuhan University, v 29, p 513, 2004

Tang, Xu; **Liu, Yaolin**; Wang, Pucha, Spatial analysis method for monitoring land value dynamically, Geomatics and Information Science of Wuhan University, v 29, p 517, 2004

Tang, Xu; Hu, Shiyuan; **Liu, Yaolin**, Design and integration of repository in land evaluation system, Geomatics and Information Science of Wuhan University, v 29, p 433, 2004

Ai, Tinghua; **Liu, Yaolin**, Aggregation and amalgamation in land-use data generalization, Geomatics and Information Science of Wuhan University, v 27, p 486, 2002

Liu, Yaolin; Fan, Yanping; Tang, Xu, Application of the shortest path in land grading, Journal of Wuhan Technical University of Surveying and Mapping, v 25, p 510-515, 557, 2000

Conference Proceedings

Liu, Yaolin; Tang, Xinming, 2009, Proceedings of SPIE - The International Society for Optical Engineering: Introduction, Proceedings of International Symposium on Spatial Analysis, Spatial-Temporal Data Modeling, and Data Mining

Zhan, Changgen; **Liu, Yaolin**, 2009, Study on cadastral basic attribute data structure based on man-land relationship, Proceedings of International Symposium on Spatial Analysis, Spatial-Temporal Data Modeling, and Data Mining

Zhang, Zhi; **Liu, Yaolin**; Gong, Jian, 2009, Study on the expropriation (Requisition)

price of cultivated land in China -Take Nanyang City, Henan Province as an example, Proceedings of International Symposium on Spatial Analysis, Spatial-Temporal Data Modeling, and Data Mining

Chen, Yiyun; **Liu, Yaolin**; Wang, Dun; Kong, XueSong; Zeng, Chen, 2009, Feasibility of estimating heavy metal concentrations in water column using hyperspectral data and partial least squares regression, Proceedings of nternational Symposium on Spatial Analysis, Spatial-Temporal Data Modeling, and Data Mining

Jia, Zelu; **Liu, Yaolin**, 2009, Visualized spatial data classifying based on spatial data mining, Proceedings of the 1st International Workshop on Education Technology and Computer Science, ETCS 2009

Gong, Jian; **Liu, Yaolin**; Zhangzhi; Li, Jiangfeng, 2009, Urban land space evolution based on geographical simulation systems, Proceedings of International Symposium on Spatial Analysis, Spatial-Temporal Data Modeling, and Data Mining

Jia, Zelu; **Liu, Yaolin**, 2009, Integrated GIS and interactive spatial data mining for land evaluation, Proceedings of 2009 International Workshop on Intelligent Systems and Applications, ISA 2009

Wu, Jian; **Liu, Yaolin**; Li, Xican; Wang, Jing; Chen, Dan, 2009, Comparison of multivariate statistical analysis and fuzzy recognition algorithm for quantitative mapping soil organic matter content with Hyperspectral data, Proceedings of International Symposium on Spatial Analysis, Spatial-Temporal Data Modeling, and Data Mining

Wei, Yanfei; **Liu, Yaolin**; Wang, Dun, 2009, A improved particle swarm optimization based on cloud model with implications for urban land use planning, Proceedings of International Symposium on Spatial Analysis, Spatial-Temporal Data Modeling, and Data Mining

Gao, Xiaoyong; **Liu, Yaolin**; Su, Lilan; Zhang, Yang, 2009, Predicting methods of construction land demand and application in county's general land use planning, Proceedings of International Symposium on Spatial Analysis, Spatial-Temporal Data Modeling, and Data Mining

Gao, Xiaoyong; Su, Lilan; **Liu, Yaolin**, 2009, Optimal allocation of construction land based on GIS, Proceedings - 2009 1st International Workshop on Database Technology and Applications, DBTA 2009

Wang, Huibing; **Liu, Yaolin**; Tang, Xinming, 2009, Spatio-temporal data dynamic visualization based on temporal tree structure, Proceedings of International Symposium on Spatial Analysis, Spatial-Temporal Data Modeling, and Data Mining

Jiqiang, Niu; **Yaolin, Liu**; Feng, Xu.; Yang, Zhang, 2009, Data mining of synergetic coupling for land use based on extenics, Proceedings of International Symposium on Spatial Analysis, Spatial-Temporal Data Modeling, and Data Mining

Jian, Wu; **Yaolin, Liu**; Dan, Chen; Jing, Wang; Xu, Chai, 2009, Quantitative mapping of soil nitrogen content using field spectrometer and hyperspectral remote sensing, Proceedings - 2009 International Conference on Environmental Science and Information Application Technology, ESIAT 2009

Liu, Yaolin; Wang, Kun; Liu, Yanfang; Deng, Nianchao; Liu, Yang, 2008, Valuing agriculture land standard prices based on Agriculture Land Gradation and Evaluation Information System (ALGEIS), Proceedings of Geoinformatics 2008 and Joint Conference on GIS and Built Environment: The Built Environment and Its Dynamics

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