

# The International Association of Chinese Professionals in Geographic Information Science

**CPGIS  
2010  
Newsletter**



Lead Editors: Xin Miao, Shiguo Jiang and Desheng Liu

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# 1. Report, Awards and News

## 1.1 Report of the 2010 CPGIS "GO-HOME" project

Dear CPGIS members

It was with great pleasure to report that the 2010 CPGIS "GO-HOME" project was successfully held on June 13-17 and June 21-24, 2010 at Guangzhou University and Henan University respectively.

With Guangzhou being the center of the well-developed Pearl River Delta Metropolitan area, and Kaifeng being part of the emerging Zhengzhou-Kaifeng-Ruoyang Metropolitan area, the theme of this year's "Go Home" project was the Application of Geospatial Technology in Urban Development. During the visit to the two cities, seven overseas speakers selected by CPGIS "GO-HOME" committee, Drs. Aijun Chen, Daoqing Tong, Le Wang, Yong Lao, Ronald Briggs, Shixiong Hu, and Fang Qiu delivered multiple advanced GIS and Remote Sensing seminars in the areas of their specialty to more than 200 GIS students and professionals. Five domestic GIS scholars from Beijing University, Sun Yat-sen University, Southern China Normal University, and other university also presented their research work in Guangzhou. The seven speakers also participated in the CPGIS annual conference - Geoinformatics 2010 - in Beijing on June 18-20.

Through the presentation and follow-up discussion, we achieved the goal of strengthening the communication between the overseas CPGIS scholars and GIS professionals and students in China through exchanging the latest developments of their respective areas. The project was co-sponsored by Guangzhou University and Henan University. We would like to use this opportunity to express our appreciation to Professors Jianfei Chen and Yinbiao Chen of Guangzhou University and Professors Yaochen Qin and Minzhou Qin of Henan University for their generous support to the project. Thanks also go to the seven CPGIS scholars who contributed to the success of the project. Enclosed please find two pictures taken at the events.

Cheers!

Fang Qiu

### **Report: CPGIS 2010 "GO-HOME" Project**

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## 1.2 Service of Excellence Award

Dear CPGISers,

On behalf of the CPGIS Service Award Committee, I am pleased to announce that this year's Service of Excellence Award goes to the follow individuals and team:

Individual Award recipients: **Dang, Anrong   Liu, Lin   Wang, Le**

Group Award recipient: **Bao, Shuming and his team at CPGIS Headquarter at China Data Center, University of Michigan**

The recipients were selected through a nomination process involving all CPGIS members followed by a BOD voting process. All recipients have received 2/3 or more votes from BOD members. The award will be presented to the recipients at GeoInformatics' 2010 Conference in Beijing later this month.

Congratulations to all the award recipients!

Yongmei Lu, PhD  
Associate Professor  
Department of Geography  
Texas State University  
Tel: 245-1337

## **1.3 Good News from Qian Yu's group at University of Massachusetts-Amherst**

- 1). Best Student Paper Awards in Geoinformatics 2010, Beijing.  
Weining Zhu and Qian Yu, Spatial chromatic tessellation: topology, interpretation, and implication, University of Massachusetts (First Place)  
Ninghua Wang, Lin Liu, John Eck, Analyzing Spatial Effects of Hotspot Policing with a Simulation Approach, University of Cincinnati (Second Place)  
Xia Peng, Anrong Dang, Tianhang Huang, Towards an Effective Semantic Enriched Spatial Database, Tsinghua University (Third Place)  
Yiting Wang, Xiuwan Chen, Quantifying Spatial Information of Remote Sensing Data Based on the Spatial Degree of Membership (SDM) Beijing University, (Third Place)
- 2). Weining Zhu, Ph.D candidate at University of Massachusetts-Amherst, received International Student Travel Award from AAG Geographic Information Systems and Science Specialty Group (GISS-SG). The award will be announced in Seattle 2011.
- 3). Qian Yu, Assistant Professor at University of Massachusetts-Amherst, awarded Early Career Best Paper Award from AAG Remote Sensing Specialty Group, Washington, DC, 2010. Her paper "Functional linear analysis for estimating riverine CDOM in coastal environment using in situ hyperspectral data", is published in PERS October Issue.
- 4). Qian Yu (PI) and her collaborators at University of Massachusetts were recently awarded a three-year grant by NSF Collaboration in Mathematical Geosciences program to study Dissolve Organic Carbon dynamics in coastal region using remote sensing and mathematic modeling.

Congratulations!

## 2. Positions Available

### 2.1 Two tenure-track assistant prof positions in human and physical geog at Univ. of Utah

The Department of Geography at the University of Utah in Salt Lake City invites applications for two tenure-track positions at the Assistant Professor level starting 1 July 2011.

1. A physical geographer with a research focus on climate change impacts on terrestrial environments. The successful applicant will be engaged in research that emphasizes climate change dimensions of hydrology, disturbance, alpine environments and/or arid landscapes.
2. An urban/economic geographer specializing in urbanization, globalization, development, and/or transportation; or the public health implications of these processes. Preference will be given to candidates with strong quantitative, computational and/or GIS skills.

For both positions, the ability to collaborate with faculty within the Department of Geography and participate in interdisciplinary research at the University of Utah is highly desirable. Also desirable is the ability to teach introductory cartography, spatial analysis or a lower-division service course in the candidate's general area of expertise. Applications should consist of a vitae, statement of research, statement of teaching, teaching evaluations (if available), and the names, addresses, phone numbers and email addresses of exactly four references. Applications will only be accepted electronically. Please submit your application as a single PDF file to one of the following e-mail addresses. For the physical geography position, e-mail your application to [physical\\_position@geog.utah.edu](mailto:physical_position@geog.utah.edu). For the urban/economic geography position, e-mail your application to [urb\\_econ\\_position@geog.utah.edu](mailto:urb_econ_position@geog.utah.edu). **The due date for applications is 1 October 2010**; applications received after the deadline may be considered until the position is filled. For more information on the Department of Geography, see [www.geog.utah.edu](http://www.geog.utah.edu). Questions can be directed to (physical position) Dr. Philip Dennison ([dennison@geog.utah.edu](mailto:dennison@geog.utah.edu)); (human position) Dr. Thomas Cova ([cova@geog.utah.edu](mailto:cova@geog.utah.edu)) The University of Utah values candidates who have experience working in settings with students from diverse backgrounds, and possess a strong commitment to improving access to higher education for historically underrepresented students. The University of Utah is fully committed to affirmative action and to its policies of nondiscrimination and equal opportunity in all programs, activities, and employment. Employment decisions are made without regard to race, color, national origin, sex, age, status as a person with a disability, religion, sexual orientation, gender identity or expression, and status as a protected veteran. The University seeks to provide equal access for people with disabilities. Reasonable prior notice is needed to arrange accommodations. Evidence of practices not consistent with these policies should be reported to Director, Office of Equal Opportunity and Affirmative Action, (801) 581-8365 (V/TDD).

## 2.2 Tenure-track Assistant Professor of geography at Kennesaw State University

**Department: Geography and Anthropology**

**Position Title: Assistant Professor of Geography**

**Position Qualifications /Responsibilities**

The Department of Geography and Anthropology at Kennesaw State University (KSU) is accepting applications for a tenure-track Assistant Professor of geography position to begin in [August](#) 2011. The successful candidate will have a PhD in Geography or closely-related field, expertise in Economic Geography and the ability to use GIS for related applications.

Responsibilities will include teaching courses in lower level human geography, introduction to GIS on occasion, upper division economic geography, upper division research methods (both quantitative and qualitative), and is invited to develop an upper division course in his/her specialty. Regional specialty is open.

Commitment to excellence in teaching, complemented by strong scholarship and engagement, is expected of all faculty members in KSU's College of Humanities and Social Sciences.

Kennesaw State University is a growing and progressive university in Georgia's public system of higher education. Located on an attractive campus in suburban Atlanta, KSU currently enrolls more than 22,000 traditional and nontraditional baccalaureate, master's and doctoral students. The thriving Atlanta metropolitan area has a rich array of museums, theaters, libraries, colleges and universities, and other resources. The department strives to provide an inclusive learning environment to prepare students for personal and professional success in an increasingly multicultural and global society. Candidates are, therefore, encouraged to address in their applications how they can contribute to the diversity of the KSU community.

**Application Procedure** [To guarantee consideration, application materials must be postmarked by Oct. 15, 2010.](#) Applicants should submit a letter of application addressing strengths relative to the

qualifications and responsibilities of the position, current curriculum vita, evidence of teaching excellence (e.g., student evaluations), evidence of achievement in scholarship (e.g., samples of published peer reviewed articles), copies of all undergraduate and graduate transcripts (official transcripts required upon employment), and names and contact information of three references to:

Dr. Mark Patterson

Geography Search Chair

Department of Geography and Anthropology

Kennesaw State University

1000 Chastain Rd., MD # 2203

Kennesaw, Georgia 30144-5591

For a detailed description of the university, college and department, please visit our home page at [www.kennesaw.edu](http://www.kennesaw.edu). You also visit the department home page at:

<http://ga.hss.kennesaw.edu/>

**Date Position Available** August 2011

**Policy Statement** *Kennesaw State University, a member of the University System of Georgia, does not*

*discriminate on the basis of race, religion, color, sex, age, handicap, national origin, or sexual orientation, as authorized by law. Georgia is an Open Records State. AA/EOE.*

### **Questions About Position**

#### **Opening**

For questions about this position opening, contact Dr. Mark Patterson via email at [mark\\_patterson@kennesaw.edu](mailto:mark_patterson@kennesaw.edu)

## **2.3 ESRI -Higher Education Solution Manager**

Job Specification – Higher Education Solutions Manager

ESRI is looking for an experienced and respected “thought leader” in GIS education to help ESRI create a more spatially aware world through interaction with the higher education communities around the world. The holder of this post will contribute to existing high level goals of the Higher Education Program at ESRI by:

- Promoting the vision of a spatially literate world
- Leading ESRI’s efforts to support and enable the academic community
- Helping ESRI design GIS solutions that meet the administrative, educational and research needs of academic communities
- Working with the academics to strengthen research efforts in spatial technologies

This will involve a wide range of activities including:

- Representing ESRI to the academic community at conferences, trade shows, and seminars

Developing examples of best practices of using GIS in higher education

Participating in academic initiatives on behalf of ESRI that contribute to the goals defined above

Acting as a liaison to education organizations that share the same common values

This is a very significant opportunity to make a major contribution to the future of geography in higher education.

## **2.4 Tenure Track Position in Human Geography**

The Department of Geography at Central Michigan University invites applications for a tenure track appointment in Geography at the rank of Assistant Professor, with specialization in Human Geography effective August, 2011. A doctorate in Geography is required at the time of appointment (ABD may be considered upon confirmation that completion is imminent). Successful candidates will have a strong background in human geography with a regional focus and specialization in economic, political, or medical geography, as well as proficiency in GIS and the ability to apply geospatial technology to teaching and research. Demonstrated effective communication skills and the potential for excellence in teaching and research are also required. Candidates who demonstrate the potential to participate in collaborative activities with CMU's GIS Center are preferred. Responsibilities include teaching introductory courses in human geography and advanced courses in the area of specialization, mentoring undergraduate and graduate students in research, actively seeking external funding and developing a viable research program, and university and department services. **Screening will**



**begin on November 1, 2010**, and continue until the position is filled.

The department offers a B.S. (major and minor) in Geography and M.S. in Geographic Information Sciences as well as Geography minors and majors for teacher education students. Computer and lab facilities are state-of-the-art. Additional potential research opportunities are available in CMU's GIS Center and the Central Michigan University Research Corporation. The Geography Department also houses the Michigan Geographic Alliance. Classified by the Carnegie Foundation as a doctoral research university, CMU is recognized for strong undergraduate education and a range of focused graduate and research programs. Minorities and women are encouraged to apply.

Applications must be submitted on-line through the web site ([www.jobs.cmich.edu](http://www.jobs.cmich.edu)) in order to be considered. Cover letters may be addressed to: Dr. Bin Li, Chair, Department of Geography, Central Michigan University, Mount Pleasant, MI 48859.

## **2.5 System developers and administrator**

We plan to hire several system developers and administrator(s). The following describes the technical requirements. Successful candidates will receive competitive salary and benefit, and will join cloud computing leaders to advance spatial cloud computing and to build Data as a Service (DaaS) for Earth and Space science discovery and exploration. US permanent residence or citizenship is required. For best consideration, please email Dr. Chaowei Yang at [cyang3@gmu.edu](mailto:cyang3@gmu.edu) by **9/30/2010** with a curriculum vitae and contact of three references.

System administrator qualification:

- Minimum bachelor degree in computer science, GIS, or other relevant fields.
- System administration experience with large numbers of distributed servers and disks. Specifically, experience with a Linux OS is required (such as Ubuntu, CentO/S, and Red Hat).
- Experience with JAVA, C/C++, Python, etc.
- Experience with file systems and file system optimizations in Linux is required; in addition, experience with object based file storage within a cloud computing environment is a plus.
- Experience with administering and running virtualized servers using open source KVM and VMWare is a plus.
- Experience using commercial cloud services, such as Amazon EC2, Amazon S3, Google App Engine, etc. is a plus.
- Energetic people with experience working in a team environment and can adapt quickly to changing requirement is a must.

Software developer qualification:

- Minimum bachelor degree in computer science, GIS, or other relevant fields.
- Working experience with at least one Linux OS is required, such as Ubuntu, CentO/S, and Red Hat.
- Demonstrated experience with JAVA, C/C++, Python, etc.
- Working experience with virtualized servers using open source KVM and/or VMWare is

required.

- Experience in geospatial technology is required.
- Familiarity with programming environments in large distributed environments, parallel programming, scheduling algorithms, web service applications, etc.
- Experience in porting applications to cloud environments is a plus.
- Experience using commercial cloud services, such as Amazon EC2, Amazon S3, Google App Engine, etc. is a plus.
- Energetic people with experience working in a team environment and can adapt quickly to changing requirement is a must.

## **2.6 Academic and Research Positions at Tongji University, Shanghai, China**

Academic and research positions available immediately at the Center for Spatial Information Science and Sustainable Development, Tongji University, Shanghai, China (<http://celiang.tongji.edu.cn/index.htm>).

Full professor or senior research scientist (1 ~ 2)

Research associates and post doctoral researchers (2 ~ 3)

Areas of research include spatial information and sensor network, precision navigation and positioning, spatial mobile service, photogrammetry and remote sensing, GIS and sustainable development applications. Salary and startup packages depend on qualification. Detailed information at

[http://celiang.tongji.edu.cn/measure/celiang/celiang\\_news\\_show\\_dtl.jsp?newsID=568](http://celiang.tongji.edu.cn/measure/celiang/celiang_news_show_dtl.jsp?newsID=568).

Send resume, recent papers, and references to Prof. Weian Wang ([weian@tongji.edu.cn](mailto:weian@tongji.edu.cn), 0086-21-65985212)

## **2.7 Tenure-track assistant professor in GIScience- the University of Texas at Austin.**

The Department of Geography and the Environment invites applications for a tenure-track assistant professor to begin in Fall 2011, with a research specialization in GIScience. We are seeking a hire who would help build on our traditions of fieldwork in international contexts, who would strengthen a long-standing human-environment emphasis or our new environmental efforts (including a B.S. degree in environmental science), and/or who would enrich a large urban studies program run by the department.

Applicants should have the PhD in hand or expected by August 2011 and evidence of excellence in both scholarship and teaching. The successful candidate should be willing and able to teach our introductory GIS course (Environmental Geographic Information Systems) with interest and passion. The person hired also would be expected to teach an advanced GISc undergraduate

course and a graduate seminar in her/his area of particular expertise. In addition, the candidate would also be expected to develop a strong research program, direct graduate research, demonstrate evidence of successful research productivity, and exhibit a commitment to service to the department, college, and university. There are many on-campus resources and possibilities for collaboration, including through the Center for Space Research, the Environmental Science Institute, the Population Research Center, and the Teresa Lozano Long Institute of Latin American Studies. In addition, Austin is home to many government agencies and other organizations interested in the use of digital geographic information.

Send letter of application with a statement on teaching and research goals, curriculum vitae, copies of publications and evidence of ability to acquire external research funding, and three letters of reference to: Kenneth R. Young, Chair, Department of Geography and the Environment, University of Texas, Austin, TX 78712. **Applications will begin being reviewed on October 11, 2010 and will continue until position is filled.** Background check conducted on applicant selected.

The University of Texas at Austin is an Affirmative Action/Equal Opportunity Employer.

## 2.8 武汉大学遥感信息工程学院 诚聘高层次人才

武汉大学遥感信息工程学院是培养摄影测量、遥感及空间信息技术高级专门人才的信息科学与工程类学院。学院拥有测绘科学与技术一级学科国家重点学科，设有测绘科学与技术博士后流动站，现有教授 23 人，博士生导师 34 人，副教授 18 人，其中中国科学院院士 1 名，中国工程院院士 2 名，欧亚科学院院士 2 名，国家“千人计划”入选 2 名，教育部“新世纪优秀人才计划”入选 2 名，珞珈特聘教授 2 名，国家测绘局“跨世纪学术和技术带头人”2 名，湖北省教学名师 1 名、湖北省有突出贡献中青年专家多名。在“211”工程和“985”工程的支持下，学院逐步建立起了具有世界领先水平的科研和教学环境，现有 MODIS 遥感卫星接收站、民政部减灾和应急工程重点实验室、地球空间信息中国冶金地质总局重点实验室、卫星数据处理与应用技术研究中心、数字摄影测量与计算机视觉研究中心、数字流域研究中心等科研平台，基本建成航天、航空、低空、地面立体数据采集体系，取得了一批有重要影响的研究成果。为了拓展学科范围和专业覆盖，进一步提升我院的学科优势地位，全面提高教学、科研水平，我院现面向海内外诚招多名学术带头人、骨干教师、研究学者等高层次人才。

一、招聘岗位 1. 学术带头人（“千人计划”、长江学者、楚天学者、珞珈学者等；多名） 2. 骨干教师（多名） 3. 研究学者（含博士后；多名） 二、招聘要求 学术带头人 1. 招聘领域为：遥感机理与行业应用、传感器与对地观测技术、地球空间信息科学。 2. 具有博士学位，学术造诣较高，在科学研究方面取得国内外同行公认的重要成就。 3. 具有良好的团队协作精神和组织管理能力，善于培养青年人才，注重学术梯队建设，能带领一支创新团队协同攻关。 4. 具有宽广的学术视野，对本学科建设具有创新性构想和战略性思维，具有带领本学科在其前沿领域赶超或保持国际先进水平的能力。 5. 能胜任核心课程的讲授任务。 骨干教师 1. 招聘领域为：遥感机理与行业应用、传感器与对地观测技术。 2. 具有博士学位，拥有在国内外高水平学术机构的学习或任职经历。拥有遥感行业应用背景者优先。 3. 具备良好的团队精神和攻关能力，在上述领域已取得一定的研究成果，拥有自己的研究特色和创新突破点， 2 / 2 已在国内外高水平期刊上发表学术论文。 4. 能胜任专业课程的讲授任务，能够中英双语教

学者优先。 研究学者（含博士后） 1. 研究领域为：影像和点云数据的智能处理。 2. 在相关领域取得博士学位不超过三年，或多年从事相关研究。 3. 在相关领域已取得显著科研成果（学术论文、科研项目和专利等）。 4. 勤于钻研，工作主动，具备良好的职业道德和严谨的学风，有团队合作精神和独立开展科学研究的能力。 5. 具有良好的中英文写作和表达能力。 三、聘任期限与待遇条件 学术带头人、骨干教师 根据国家及武汉大学的相关政策，由我院与应聘者协商确定。 研究学者（含博士后） 聘期 3 年，录用后立刻开始工作。根据武汉大学相关人事政策，并按录用者的研究经验及学术成绩确定薪酬和福利。成绩突出者可以续聘。 四、应聘程序 学术带头人 常年招聘，按申请顺序进行评审，欢迎有意向者随时来电来函联系。 骨干教师、研究学者（含博士后） 1. 请应聘者通过电子邮件发送个人简历一份，简历中需列出个人所发表的学术论文以及参与的科研项目。研究学者（含博士后）岗位的应聘者还需提供研究计划一份（英文，不超过 2 页）。 2. 初选合格后，应聘者需提供 2-3 名推荐者名单，由我院向其索取推荐信。 3. 入围面试的应聘者需到我院进行面试，面试内容和程序另行通知。 4. **应聘者申请材料的评审于 2010 年 12 月 1 日开始。** 五、联系方式 联系人：樊老师（武汉大学遥感信息工程学院科研秘书） 联系电话：027-68778243，13476290300； 电子邮箱：fanxi@whu.edu.cn 通讯地址：湖北省武汉市洪山区珞喻路 129 号武汉大学遥感信息工程学院 邮编：430079

## 2.9 GIS Tenure Track Position, Department of Geography at the University of Kentucky

KENTUCKY, LEXINGTON 40506-0027. The University of Kentucky, Department of Geography seeks applicants for a tenure track position with research and teaching expertise in Geographic Information Science. Appointment will be at the Assistant or Associate Professor level, commencing Fall 2011.

The successful candidate will blend an active interest and strong technical expertise in GIS with research that directly and critically engages with information, visualization and geospatial technologies in ways that complement existing faculty strengths in human or environmental geography.

A commitment to developing GIS capacity and interdisciplinary collaboration within the College and University across the social sciences, humanities and earth sciences is desirable. The U.K. College of Arts and Sciences is committed to developing a robust Center for Geographical Information Systems.

Applicants should submit (1) a current curriculum vitae; (2) a research and teaching statement; and (3) up to three research related reprints as per the instructions below. Applicants should also arrange for three letters of reference (in hard copy) to be submitted by the start of the review process.

**The formal review process will begin on October 15, 2010**, and will continue until the position is filled. A Ph.D. is required at time of appointment.

Faculty contact: Dr. Matthew Zook, Chair, Search Committee, Department of Geography,

University of Kentucky, Lexington, KY 40506-0027, email: [zook@uky.edu](mailto:zook@uky.edu). Email applications are required and should be sent directly to Donald Mason ([donald.mason@uky.edu](mailto:donald.mason@uky.edu)). Please make the subject field "GIS JOB APPLICATION" and attach relevant documents in pdf format with clear descriptive filenames, e.g., Lastname\_Firstname\_cv.pdf, Lastname\_Firstname\_teaching\_statement.pdf, etc.

The University of Kentucky is an Affirmative Action/Equal Opportunity University that values diversity and is located in an increasingly diverse geographical region. It is committed to becoming one of the top public institutions in the country. Women, persons with disabilities, and members of other underrepresented groups are encouraged to apply. The University also supports family-friendly policies.

## **2.10 Two Assistant Professors at the University of Minnesota**

The Department of Geography at the University of Minnesota is seeking to hire two Assistant Professors, one in Urban Geography and one in Health Geography. Please note that **review of applications will begin on 1 October 2010 and 12 October 2010 respectively.**

Please see below for the official job ads, but of special interest to members of this mailing list, please note that the department is casting a wide net that includes GIScience among a range of methodological or theoretical orientations that complement the substantive areas of Health Geography and Urban Geography.

The department has long had a strong focus on GIScience, with work in spatial analysis and modeling of social and natural processes, visualization and data mining, and examination of the relationships between society and spatial technologies. We have five faculty who are GI Scientists and another half-dozen faculty who contribute to GIScience.

For more information, see <http://geospatial.umn.edu/geog/>.

More broadly, the department is housed in a top public research university, and the University of Minnesota has a longstanding interest in research and learning in GIScience. Over ninety faculty engage in geospatial science or cognate fields and we have tremendous research and teaching support. For more information, see <http://geospatial.umn.edu>

For questions about the job postings, please contact the search committee chairs, and for questions about GIScience at UMN, please contact Steven Manson ([manson@umn.edu](mailto:manson@umn.edu)) or another member of the geography faculty.

## 2.11 Assistant Professor level in Geographic Information Science at University of Illinois at Urbana-Champaign

The Department of Geography invites applications for a full-time (9 month), tenure-track position at the Assistant Professor level in Geographic Information Science with interests in cyberinfrastructure and applications in environmental science. The successful candidate will be expected to develop an active program of research and publication in GIScience (such as cyberGIS, geospatial visual analytics, remote sensing, and modeling of human and environmental systems), participate in a new cyberGIS initiative, and complement current departmental and school research strengths (see [www.geog.uiuc.edu](http://www.geog.uiuc.edu) and [www.earth.uiuc.edu](http://www.earth.uiuc.edu)). The position involves teaching undergraduate and graduate courses in the Department's core curriculum in GIScience. The Department is part of the School of Earth, Society and Environment (SESE, comprising the Departments of Geography, Geology and Atmospheric Sciences), providing excellent opportunities for interdisciplinary research. The position includes multiple opportunities to engage in programs of the National Center for Supercomputing Applications (NCSA), a leading cyberinfrastructure center for the development and application of high performance computing, scientific visualization, and data management and analysis capabilities. A Ph.D in Geography or a closely related discipline is required at the time of appointment. Salary will be commensurate with experience.

Target Starting Date: August 16, 2011.

Please create your candidate profile through <https://jobs.illinois.edu/> and upload application materials through this system. To ensure full consideration, upload your curriculum vita; including a full list of publications and a description of research and teaching interests, and PDF reprints or preprints of publications. In addition, three letters of recommendation must be sent electronically to: Susan Etter: [etter1@illinois.edu](mailto:etter1@illinois.edu).

**All materials (including letters of reference) must be submitted by the closing date of November 1, 2010.**

Inquiries about the position are encouraged; contact Sara McLafferty (Chair, GIScience Search Committee): [smclaff@illinois.edu](mailto:smclaff@illinois.edu).

Illinois is an Affirmative Action /Equal Opportunity Employer and welcomes individuals with diverse backgrounds, experiences, and ideas who embrace and value diversity and inclusivity. ([www.inclusiveillinois.illinois.edu](http://www.inclusiveillinois.illinois.edu)).

## 2.12 University of Memphis Earth Sciences Department

The University of Memphis invites applications for a tenure-track **Assistant Professor** position in the Department of Earth Sciences (DES) beginning Fall 2011. PhD is preferred, but ABD candidates will be considered. **Application deadline is October 15, 2010.**

We are in search of a candidate with research and teaching interests in Urban Geography, Economic Geography, and/or Transportation Geography. The ideal candidate will also have a regional focus (any geographic region is acceptable) and expertise in at least one technique (GIS, remote sensing, or spatial statistics). The successful candidate will join faculty who are engaged in national and international interdisciplinary research and who offer Baccalaureate, Masters, and Ph.D. degrees, and will share in the future development of Geography at this urban research university. Memphis, a major transportation hub, and The University of Memphis with a strong applied urban research focus provide opportunities for collaboration across the campus, community and region. Visit our website at <http://www.memphis.edu/des/> for additional information. **Only electronic submissions will be accepted at <https://workforum.memphis.edu/>.** Application should include a letter of interest, curriculum vitae, statements of teaching philosophy and research interests and names, addresses, e-mail addresses, and phone numbers of three references. If you have questions, please contact Dr. Esra Ozdenerol, Search Committee Chair, Department of Earth Sciences-Geography, Phone: 901-678-2787; Email : [eozenrl@memphis.edu](mailto:eozenrl@memphis.edu).

The University of Memphis is an Equal Opportunity/Affirmative Action/ Title VI/Title IX/Section 504/ADA/ADEA employer that strives to increase its ability to serve a diverse student population by enhancing its diverse faculty and staff.

## 2.13 Bixby Fellowship Program

Center for Regional Development (Department of Commerce EDA University Center) School of Earth, Environment and Society, Bowling Green State University Bowling Green, OH 43403 Phone: (419)372-9125 <http://personal.bgsu.edu/~xye/>

Bixby Fellowship Program – **Applications due January 15, 2011** Bixby fellowships allow citizens of developing countries to work with experienced mentors in the Council's international network of offices. Fellows work on projects in one of three program areas: Reproductive Health, HIV/AIDS, and Poverty, Gender and Youth. A description of the program and details about the application process are available on the Council's website at: [www.popcouncil.org/what/bixby.asp](http://www.popcouncil.org/what/bixby.asp).

# **3.Conferences/Seminars/Workshops Organized**

## **3.1 Geoinformatics 2010 was successfully held at Peking University, Beijing**

Dear all CPGISers,

The 18th International Conference on Geoinformatics (Geoinformatics 2010) was successfully held on June 18-20 at Peking University, Beijing.

The conference consists of plenary session, 1 student paper competition session, 6 special sessions, 34 general sessions, 3 poster sessions, and two workshops. In the plenary session, there are 5 professionals from academia and governments given the welcome addresses and 9 keynote speakers gave excited high-level professional speeches. The student paper competition session, chaired by Prof. Xun Shi, chose four students as the first, second and third (2) place awardees.

The conference received more than 600 submissions, and about 550 professionals and students who come from 18 countries and districts participated in the conference. Lots of our CPGIS members came to the conference and played very important roles in the conference. For example, the workshop for Junior and Future Faculty, organized by Prof. Lin Liu, has attracted a wide interest.

The conference program and detailed information about the conference is available online at the conference website (<http://cn.geoinformatics2010.org/>). All accepted papers will be published by IEEE eXplore.

Attached please find the pictures of this conference.

On behalf of the local organization committee of Geoinformatics 2010 and CPGIS annual conference committee, I would like to take this opportunity to thank chairs and members of International Steering Committee, Program Committee and Local Organization Committee for their selfless contribution to the conference, thank all authors for their contribution, thank all sessions' chairs for their dedicated work to hold the sessions, thank CPGIS members for their continuous support to the annual conference.

Cheers,

Yu Liu, Ph. D.  
Chair of CPGIS annual conference committee





## **3.2 CPGIS 2010 Young Scholar Summer Workshop (YSSW 2010) in Wuhan University**

The CPGIS 2010 Young Scholar Summer Workshop (YSSW 2010) was successfully held on June 15-16 at State Key Laboratory for Information Engineering in Surveying, Mapping and Remote Sensing (LIESMARS), Wuhan University, Wuhan.

The workshop consists of 11 invited speakers in the field of “GI Service Science and Frontier Techniques in a Changing World”. Topics include Cyberinfrastructure, Sensor Web, Semantic Web, Virtual Globe, Location Based Service and etc.

On behalf of the local organization committee of YSSW 2010, I would like to thank chairs and members of CPGIS for their continuous support to the YSSW. I would like to thank the grant support from the Chinese 863 program (No.2007AA12Z230).

Nengcheng Chen, Ph.D., Chair of CPGIS YSSW 2010, LIESMARS, Wuhan University

## **4. Call for Papers/Participations**

### **4.1 Geoinformatics 2011 (the 19th) will be held in Shanghai**

Call for Papers and Sessions: The 19th International Conference on GeoInformatics  
June 24-26, 2011, Shanghai, China

<http://cpgis.org>

## **Introduction**

The Geoinformatics conference series was initiated by the International Association of Chinese Professionals in Geographic Information Sciences (CPGIS) in 1992. This annual international conference has provided a unique forum for exchanging ideas and knowledge on geo-information sciences between GIS professionals worldwide. The 19th International Conference on Geoinformatics (Geoinformatics 2011) will be held on June 24-26, 2010 at Shanghai, China. The conference is co-organized by East China Normal University, East China University of Science and Technology, and the International Association of Chinese Professionals in Geographic Information Sciences (CPGIS), and co-sponsored by Shanghai Urban Development Information Research Center. Key Lab of Geographical Information Science, Ministry of Education, is the local organizer of the conference.

The conference theme is “GIS in Education and Business” It will provide an unprecedented opportunity for professionals and students from remote sensing, Geoinformation science, and related disciplines to discover cutting-edge geoinformatics technology and applications, while at the same time exchanging their ideas, research results, professional experiences, and future visions in the fields of geographic information science, remote sensing, and their applications.

The conference will include plenary, special, oral, and poster sessions. Please consider submitting your abstracts and papers to the sessions most suitable for exchanging your ideas and research with similar researchers.

The Organization Committee would like to invite all interested parties to propose special sessions for Geoinformatics 2011. Special session Chairs can propose full sessions (10 papers) or half sessions (5 papers). The Session chairs are responsible for inviting the papers and ensuring these papers are submitted via the normal conference referee process. If a Special Session lacks enough papers to complete the time allotment, additional papers can be selected from the general paper submissions.

## **Conference Theme: “GIS in Education and Business”**

### **Conference Topics**

The conference will include, but not be limited to, the following topics:

- GIS in education
- GIS in business
- GIS in urban and regional development
- Geospatial data sharing and interoperability
- Geospatial web services
- Geospatial Grid computing
- Multi-dimensional (2D, 3D, and 4D) spatial data modeling
- Virtual environment and their applications
- Wireless and mobile GIS solutions
- Automated object extraction and database updates from imagery
- Processing and application of high-resolution imagery
- Integration of RS, GIS and GPS (3S)

- Spatial decision support systems
- Representation and visualization of geospatial data
- Spatial statistics and applications
- Government and public GIS
- GIS for environment and health
- Geospatial simulation and computation
- Volunteered geographic information (VGI)

### **Special Sessions**

Professionals are welcome to organize special sessions. The special session proposal should include the following information:

- Session chair(s) names, affiliations
- Contact information (email address, phone, fax)
- Session title
- Full or half (10 or 5 papers)
- Short description of the session (about 150 words)
- Submit completed session proposals to [cpgis2011@umich.edu](mailto:cpgis2011@umich.edu)

### **Abstracts and Papers**

Participants are invited to submit original, unpublished research contributions or experience reports not concurrently submitted elsewhere. All abstracts must be 300-500 words long and written in English. They will be refereed for quality, originality, and relevance by the program committee. The first call is for an extended abstract. Authors of the accepted abstracts will be invited to submit full papers to be published in an EI-covered conference proceeding. Some selected papers will be published in special issues of SCI/SSCI-covered journals.

Please submit abstracts online at <http://cpgis.org>. Abstracts must include title, authors (First name Last name), indicating the presenter by underlining their name and providing author's contact information: affiliations, department, full address (street, city, state/province, and country), telephone, fax, and Email.

### **Special programs for participating students**

CPGIS will organize student paper competition. The top quality papers will be selected as CPGIS GeoInformatics' 2011 Best Student Paper to receive plaque and cash award, and will be invited to submit a revised version to a special journal issue.

### **Important dates**

Session Proposal Deadline	Dec. 15, 2010
Session Proposal Acceptance Notice	Dec. 25, 2010
Abstract Deadline	Jan. 30, 2011
Abstract Acceptance Notice	Feb. 28, 2011
Full Paper Deadline	Apr. 10, 2011
Full Paper Acceptance Notice	Apr. 20, 2011

Early Registration Deadline  
Conference Date

Apr. 30, 2011  
Jun. 24-26, 2011

### Contact Us

Dr. LI Xiang  
Key Lab of Geographical Information Science, Ministry of Education  
East China Normal University  
cpgis2011@cpgis.org

## 4.2 Call for papers on planetary sciences by Journal of Earth Science

This is the second call for papers on planetary sciences by Journal of Earth Science. Since the first call, many authors asked us to postdate the deadline for submission. With the agreement of Prof. Wang Hengjun, the editor-in-chief, **we have extended the submission date to the end of 2010**. Please distribute this new announcement to others. We extremely welcome you contribute your research results to this special issue.

Dr. Long Xiao, Deputy Dean, Faculty of Earth Science  
China University of Geosciences

## 4.3 Call for Papers for a special issue with Computers, Environment and Urban Systems (CEUS)

Call for Papers for a special issue with Computers, Environment and Urban Systems (CEUS)  
<http://ees.elsevier.com/ceus/>

Theme: Pervasive location acquisition-technologies and the related spatio-temporal analysis and data mining / knowledge discovery

The increasing pervasiveness of location-acquisition technologies (GPS, GSM networks, etc.) is leading to the collection of large spatio-temporal datasets and to the opportunity of better describing and understanding movement, behavior, and social networks. Multi-disciplinary approach is commonly taken in collecting, processing, and understanding the related data. The knowledge discovered during the analysis of such data fosters novel applications and services. This special issue of *CEUS* solicits original unpublished papers that feature cutting-edge computer-based research at the frontier of this area.

Suggested topics (but not limited to):

Travel pattern and trajectory analysis of large location data sets  
Mobile phone data mining and mobile social networks  
Large-scale geo-tagged data capture and network analysis  
Analysis and modeling of Individual-based monitoring data of environment or urban /  
socioeconomic impact

Notes to potential contributors

1. Manuscripts to be considered for including in this special issue should be submitted on or before October 1, 2010 through email to YL10@txstate.edu . The papers accepted for further revision for publication will be guided through the journal's online Elsevier Editorial System (EES).
2. All papers must be original, never published in similar or abridged form in English, or any other language (this includes proceedings).
3. All contributions must be research papers written in good English. Project reports will not be considered for publishing in this special issue. White papers and literature reviews are welcome.
4. Contributions shall be no more than 8000 words long, although exceptions can be made to this rule.
5. Multimedia material accompanying the written paper (which would be stored on the publisher's web site is most welcome).
6. There is no guarantee a submitted manuscript will be accepted for publication. All papers will be peer-reviewed the same way as a normal paper submission to the journal.

Guest editors:

Yongmei Lu, Texas State University, USA | YL10@txstate.edu | 512-245-1337

Yu Liu, Peking University, China | liuyu@urban.pku.edu.cn | 86-10-62751182

## **4.4 International Conference 2011 on Spatial Planning and Sustainable Development, 29-31, July, 2011, Kanazawa city, Japan**

<http://urbaneastasia.jimdo.com/conference/spsd2011-kanazawa/paper-submission/>

### **Second Call for paper**

The conference is intended to gather researchers and planning consultants who will share the latest results of research and successful case studies in spatial planning and sustainable development. The field ranges from urban policy, planning and design, planning support system to the field of transportation planning, landscape design and geography.

**Topics** SPSD 2011 is organized by Landscape East Asian, CPIJ, the Japan-China Joint Seminar on City and ITS, JSCE, Institute of Geographic Sciences and Natural Resources Research, CAS and Commission on Geospatial Analysis and Modeling, ICA. The conference aims to gather researchers and planning consultants who will share the latest results of research and successful case studies in spatial planning and sustainable development. The topics of interest include, but

not limited to:

- Sustainable development and land use
- Low carbon city and transportation
- Environment policy and landscape design
- Policy modeling and geospatial technology
- Spatial policy and planning support

### **Important Dates**

Deadline for abstract (about 800 words): September 15, 2010

Notification of Acceptance: October 15, 2010

Deadline for full paper: March 15, 2011

Early registration will be available in early April, 2011

### **Author Guidelines**

SPSD 2011 paper submission and review process is conducted in the following manner:

SPSD 2011 requires authors to submit the title, list of authors, a brief abstract (about 800 words), and a list of 3-6 keywords for each paper before the abstracts submission deadline. Authors can update the above information when submitting the full-length paper.

The length of each paper should not be longer than 18 pages following the format given in the paper template.

Submission of the paper abstract and the full-length paper must be done electronically.

Paper submissions will be reviewed by experts in their respective research fields selected by the conference committee.

### **Please use the on-line submission system of SPSP2011**

<https://www.easychair.org/account/signin.cgi?conf=lea2011>

### **Publication**

SPSD 2011 Proceeding will be issued in 29-31 July, 2011. Selected papers will be published in a book after conference.

## **4.5 Call for Papers: Space-Time Integration in GIS and GIScience**

Every year, the Association of American Geographers (AAG) identifies a particularly timely or relevant set of themes to feature during its Annual Meetings. Last year an over-riding theme was climate change, for example, and previous years have included featured sessions on topics such as human rights, landscape and literature, sustainable development in Africa, geography of water, and many other topics. A special **Symposium focused on the research status, recent advances and research needs of space-time integration, modeling and analysis in geography and GIScience** will be organized within the AAG Annual Meeting in Seattle, April 12-16, 2011. This special set of invited papers will feature many leading GIScience researchers from Asia and Europe as well as from other regions of the world, and will form a high-profile international symposium within the AAG Annual Meeting.

Space-time analysis is a rapidly growing research frontier in geography, GIS, and GIScience.

Advances in integrated GPS/GIS technologies, the availability of large datasets (over time and space), and increased capacity to manage, integrate, model and visualize complex data in (near) real time, offer the GIS and geography communities extraordinary opportunities to begin to integrate sophisticated space-time analysis and models in the study of complex environmental and social systems, from climate change to infectious disease transmission.

This special Symposium builds on momentum from a space-time analysis workshop co-sponsored by the AAG, ESRI, the University of Redlands, and University of Southern California in early 2010, as well as several other initiatives during the past few years. GIScientists, Geographers, modelers, computer programmers, GPS/GIS systems scientists, climate change scientists, epidemiologists, ecologists, planners, transportation experts, and others with active research expertise in integrating space-time in GIS and geography are encouraged to participate in this special symposium.

This special Symposium will open with plenary sessions led by prominent theorists and pioneers in time-space GIScience and technology research.

Symposium Organizers are:

Michael Goodchild – University of California - Santa Barbara  
Doug Richardson – Association of American Geographers  
Mei-Po Kwan – Ohio State University  
Luc Anselin – Arizona State University  
Kathleen Stewart – University of Iowa  
Tomoki Nakaya – Ritsumeikan University, Japan  
Dan Griffith – University of Texas at Dallas  
Martin Dijst – Utrecht University, the Netherlands  
Jeremy Mennis – Temple University  
Elizabeth Wentz – Arizona State University  
Michael Gould – Environmental Systems Research Institute  
Donggen Wang – Hong Kong Baptist University, China  
Jean McKendry – Association of American Geographers  
May Yuan – University of Oklahoma  
Seraphim Alvanides – Northumbria University, UK

The Symposium organizers welcome paper or poster abstracts in the following areas.

- Research advances and needs in space-time analysis and representation, such as:
  - *collaborations among GIScientists and modelers (systems, agent-based, network, etc.)*
  - *real-time GPS/GIS interactive systems*
  - *technological challenges and R&D needs*
  - *visualization of space-time in GIS*
  - *sharing discoveries and results with decision-makers*
  - *integrating analysis and results into web 2.0*
  - *ontological frameworks*
  - *qualitative space-time analysis*
  - *temporal scale and event representation*
  - *historical time and HGIS*
  - *computational algorithms*
  - *analytical tools for time constrained decision support systems*

- *sensor integration*
- *3-D or 4-D representations of time and space interactive data*
- *real-time geographic management systems*
- *uncertainty analysis*
- *community or participatory GPS/GIS and related systems (including “VGI”)*
- State-of-the-Art applications of space-time modeling and analysis in areas such as:
  - *climate change response and adaptation*
  - *species migrations and habitat connectivity*
  - *marine environments (oil spill impacts, other persistent pollution, fisheries, ocean transport)*
  - *hydrology (flows and observations)*
  - *land use/land cover change*
  - *location-based services (LBS)/mobile GIS/navigation*
  - *homelessness and poverty research*
  - *health (epidemics, disease transmission)*
  - *disaster response, crisis mapping*
  - *crime analysis and mapping*
  - *dynamics of urban renewal/decay*
  - *dynamics of the global financial system*
  - *wars, revolutions, and military activities*
  - *flows of labor and trade in a global economy*
  - *transportation (information, materials, people)*
  - *refugee populations*
- Education and the GIS workforce using space-time analysis, such as:
  - *Needs of business, nonprofit, governmental, and academic organizations for expertise*
  - *Opportunities and pathways to educate geographers and GIScientists (students to mature GIS professionals) in new research techniques, tools, and concepts*

If you are interested in presenting a paper or poster in this Time-Space Research Symposium, please go to [www.aag.org](http://www.aag.org), to register for the conference and submit your abstract by **October 20, 2010**. Indicate “Temporal” as one of your keywords. Also email a copy of your abstract submission page to Megan Overbey at [moverbey@aag.org](mailto:moverbey@aag.org). For more information on the symposium, see [www.aag.org/giscience-research](http://www.aag.org/giscience-research), or contact Jean McKendry at [jmckendry@aag.org](mailto:jmckendry@aag.org).

In addition to this featured Space-Time GIScience Research Symposium, other special themes of the AAG Seattle meeting will include session tracks focused on Asian Geographies and Research Collaborations; on Geography and Public Health; on Diversifying our Discipline; and on the Changing Role of Universities in today’s globalizing societies. These and hundreds of other cutting edge research and education sessions and workshops will be held at the Seattle meeting. The AAG Annual Meeting, with over 8,000 attendees from more than 60 countries, represents one of the most dynamic, substantive, and innovative GIScience research and scholarship events in the world. We hope you will join us in 2011 in Seattle, one of our favorite cities.



## 4.6 COM.Geo 2011

COM.Geo 2011: 2nd International Conference and Exhibition on Computing for Geospatial Research and Application, 23-25 May 2011, Washington, DC <http://www.com-geo.org>

The explosion of computing driven location based applications in the past few years has revolutionized the way we live and work. COM.Geo is an international conference and exhibition on computing for geospatial research and application with focuses on the latest computing technologies for multidisciplinary research and development that enables the exploration in geospatial. COM.Geo is an exclusive event that connects researchers, developers, scientists, and application users in both computing and geospatial fields.

### CALL FOR SUBMISSIONS

COM.Geo is a leading-edge conference for computing for geospatial research and application. We invite you to submit your research or application work to the following programs:

- \* Full Papers
- \* Short Papers
- \* Tech Talks
- \* Demo Talks
- \* Panels/Panels+
- \* Posters
- \* Courses
- \* Invited Sessions
- \* Workshops

The complete submission details are at: <http://www.com-geo.org>.

### SPECIAL SESSIONS

COM.Geo 2011 would like to invite you submit proposals for special Panels/Courses/Workshops/Invited sessions on the following topics, but not limited to:

- \* 3D GIS Development based on Google Earth, Bing Map, WorldWind, or ArcGlobe and ArcScene
- \* ArcGIS Server
- \* Augmented Reality
- \* Geospatial Cloud Computing
- \* GIS in Transportation (Aviation, Highway, and Railway)
- \* GPU based Rendering/Image Processing
- \* Hazard GIS
- \* LIDAR Data Processing and Visualization
- \* Open Source Geospatial Software (MapServer, Geoserver, etc.)
- \* Places Apps (Google Places, Facebook Places, or Twitter Places)
- \* RDBMS Spatial (Oracle Spatial, Microsoft SQLServer Spatial, PostGIS, etc.)
- \* Sensor Web
- \* Smartphone (Android, iPhone, Windows Phone 7, Symbian, etc.) Geospatial Apps
- \* Virtual City/Smart City

## IMPORTANT SUBMISSION DEADLINES

Full and Short Papers: January 24, 2011, 11:59PM EST  
Courses Proposal: March 8, 2011  
Panels/Panels+ Proposal: March 8, 2011  
Tech Talks/Posters Abstract: March 8, 2011  
Invited Sessions Proposal: Dec. 20, 2010  
Workshops Proposal: Dec. 20, 2010  
Demo Talks / Posters Abstract: Apr. 10, 2011  
Conference Dates: May 23-25, 2011 Washington DC

# 5. New Publications

## 5.1 中华人民共和国人口与环境变迁地图集

Dear Colleagues,

About a year ago I announced that we are editing an atlas as a gift to the 60th Anniversary to the founding of the People's Republic of China. This atlas is now completed and published by Science Press of China.

An introduction is attached. Anyone of you have an interest to read it and write a review for it for publication in an English media would be highly appreciated and we could provide a copy of the atlas to you free.

I also asked for interested researchers to join us in writing research articles on certain themes of map sheets.

We now have a plan to do this and to publish an smaller version of this atlas in English with a heavier portion of research reports based on the atlas and additional data provided by us. If you are interested in working with us on this book project, please let me know.

Again welcome to Beijing!

Peng Gong

### 《中华人民共和国人口与环境变迁地图集》<sup>1</sup>介绍

人与环境的交互作用是地理科学研究的核心内容。是地理研究的永恒主题。人口的数量与性质是研究人类活动的重要基础变量。地理科学的一个重要发展方向是利用现代信息科学技术对人与环境的交互作用进行多时空尺度的综合表达、展示与分析，从而达到更好地认识和理解人与环境交互作用过程和规律的目的。建国 60 年来，特别是改革开放 30 年来，随着国民经济高速发展，

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<sup>1</sup>宫鹏、刘岳主编，《中华人民共和国人口与环境变迁地图集》，北京：科学出版社，2010.

我国人口与环境状况发生了重大变化。进入 21 世纪, 人口与环境成为我国面临的两大严峻挑战和实施可持续发展战略的核心问题, 日益受到关注。

编制我国人口与环境地图集可以综合展示我国人口与环境交互作用。以往的人口与环境地图集成功展示了某一时段人与环境空间分布格局, 但是缺乏对反映人与环境时间变化过程的表达与展示。最近完成编制和出版的《中华人民共和国人口与环境变迁地图集》, 首次以地图形式, 总结和表达了我国人口与环境变化特征和现状, 剖析了人口与环境演变过程, 反映了其空间分布格局, 为读者提供认识国情, 贯彻控制人口增长和保护环境两大基本国策和开展人口与环境的科学研究的科学参考资料。

《中华人民共和国人口与环境变迁地图集》, 设计为大四开本, 划分 14 个组成部分, 共有 196 幅地图和约八万字的文字说明构成。图集在内容上的主要特点有: (1) 该图集的编制, 贯彻实事求是和密切结合实际的编制方针, 力求全面、系统和重点突出地反映我国人口与环境状况。图集在内容上概括了我国人口与环境各主要部分, 包括人口的数量、规模、素质、结构和变动; 我国环境状况的基本要素: 气候、土地、淡水、海洋、森林、草地、湿地以及受到的废气、废水和固废排放的环境污染及其治理程度, 图集内容在 194 幅地图上, 设计的指标达上千项之多。在图集的编制过程中, 从我国人口与环境发展和现状出发, 制定了我国人口与环境的制图指标体系, 构建制图指标体系时充分考虑了不同指标的意义和作用、数据年代时期、表达的地区单位以及指标间的有机联系等多种因素。图集的科学内容及其形象的制图表达, 使图集成为全面、系统和形象直观的国情信息库。

(2) 图集以人口与环境变迁为主题, 突出反映了人口与环境发展演变过程, 同时表达了近期现状, 把历史和现状相结合是图集编制一个重要特征。从 1949 年建国以来, 我国人口环境状况发生的重大变化, 在图集中通过对不同时期的对比, 不同年代同多年平均值的比较和对制图指标时间系列的数据, 通过统计分析, 计算集中趋势和离散变化特征值和主要变化区间等多种形式作了描述。在图集中对我国人口增长、人口结构的变化和人口素质的提高, 耕地增减, 土地利用和土地退化, 淡水资源年度差异和利用变化、森林的建设更新、湿地的缩减、淡水、海洋、空气质量状况变化、“三废”逐年度的排放和治理程度等诸多方面作了较详细的表达。可以看到我国人口与环境在不同历史时段的特点, 呈现不同变化的模式, 以及未来发展趋势。

(3) 图集一方面表达我国人口与环境变化过程, 同时注意阐明人口与环境的相互关系。在人口与环境总论图组中, 为了表达建国以来人口与环境变动关系, 对我国人口、经济、资源和环境的总体发展和相互作用, 以人均指标作了描述。在人口与环境关系发展过程中, 人是物质资料生产和生态建设的主体, 但人类的发展必须依赖自然资源的提供, 资源是人类发展的起点和条件; 而经济则是实现发展的过程和调节手段; 只有通过经济发展才能实现资源的物质转换, 没有资源的物质转换就谈不上发展; 而环境则是发展的最终目标, 因为发展归根到底是为了创造有利于人类全面发展的环境。因此人口、经济、资源和环境相互影响和作用的关系, 必须达到相互协调和促进。从这一指导思想出发, 图集对我国 60 年来人口、资源、经济和环境发展的总体变化特征的反应, 可用以审视我国人口与环境关系和今后的改进, 优化人口与环境关系的途径。

(4) 图集在内容上特别表达了当前地球系统科学的热点问题, 反应前沿领域最新研究成果。这些问题包括我国在全球变化中, 半个世纪来的气温和降水变化, 海平面高度变化, 二氧化碳排放强度变化, 我国陆地生态系统和森林生态系统固碳能力和碳收支分布, 以及最近完成的我国生态功能区划。在我国环境资源调查研究中, 最近利用遥感方法完成的土地利用变化制图, 湿地面积和分布的遥感调查, 土地沙漠化发展和分布现状等重要成果等均全图集中作了表示, 成为图集内容上的亮点。

(5) 图集在表达人口与环境特征上的最大优势, 在于鲜明地阐述其空间分布架构和表现区域分异规律。在该图集中, 根据我国人口与环境调查精度和实际需求, 为反映不同层次和尺度的空间分布, 区分以全国、省区、类型区、重点城市、县市、流域、公里网格和监测点等多级尺度的制图单元, 通过对其不同级别制图单元指标的可视化表达, 构成统一协调、相互补充和联系的

系列图形,用以满足从宏观认识到微观分析的不同要求,特别是各图幅的内容提供了总体分布构架,又表现不同级别地区分异规律,充分发挥地图一览性阅读功效,加深对我国人口与环境区域特征的认识。

图集的编制及其内容表达是建立在详实资料基础之上。建国 60 年来,我国人口与环境的调查研究,经过长期的积累和不断深入,已取得了重要进展。在人口数据方面,我国已进行了五次人口普查,普查内容不断丰富,从人口数量、年龄、性别、家庭、文化程度、婚姻、出生、死亡到人口的职业、行业、流动和迁移等,这些覆盖全国城乡的调查统计,为分析和表现我国的人口规模和增长模式、人口结构的变动和发展、人口素质提高等提供了丰富详细资料。在环境要素方面,我国已完成和公布了 1984-1995 年间的土地详查数据,六次森林资源清查和最近完成的第七次森林资源清查情况,以及全国草地资源调查数据等。这些全国性调查对生态资源的类型、质量、数量、分布状况的收录,为图集开展分析评价,表达区域分异规律及其保护的发展打下了基础。我国淡水和海洋的监测,有关地表、地下水水量和变化及供水用水状况等,在《中国水资源公报》中定期发布全国七大水系流域和主要湖泊、水库的淡水水量和水质状况的年度变化。我国海湾、港口和海洋近岸海域的海水理化性质、海平面高度变化、海洋赤潮及生态健康状况评价等均公开发布。这些数据的收录与展示,使图集能对我国淡水资源和海洋环境状况作系统的描述。我国环境受到的污染和环境质量的监测,在上世纪 80 年代对外发布,对全国重点城市和其他各级别城市的空气质量等级和大气主要污染物浓度,可从国家环保机关日报和年报中收集获得。对主要江河的干支流和包括城市内湖在内重点监测的湖泊、水库的水质和多达一二十种(应该准确表述)的污染物浓度及超标情况的了解,是通过多达五百种的监测断面上的持续监测的结果。在图集中对我国淡水环境和空气质量的时空变化作了多层次的反映,可以看到从全国、省区、城市、流域到河段断面、监测定位站点等多年来受到的不同程度污染。我国环境受到工业和生活的“三废”排放的影响形势严峻,从全国近十万家重点污染工矿企业的排污统计中,可以了解历年固体废物产生量、排放量、贮存量、处理量及综合利用量的处理,以及垃圾处理、无害化处理量变化。也可以了解工业废水和生活污水的排放量和废水中主要污染物排放变化。图集依据全国、省区和重点城市以及按工业行业历年废水排放总量,及废水中有机物、无机物包括重金属排放量和去除量的统计,多尺度反映了全国和不同地区水环境面临的形势以及治理成效。我国大气污染物主要来源于快速增长的石化能源消耗中的废气排放及废气中含 SO<sub>2</sub>、氮氢化物、工业烟尘和粉尘等有害污染物。图集依据多年废气及其污染物的排放统计,表现了增长变化和不同时期变化特点,同样描述了控制大气污染的措施和成效。在生态系统和生态保护方面,从多年来积累的调查和统计资料,在图集中反映了各种生物群体现状和生态保护一系列措施,特别是林业十大生态工程、造林和生态退耕面积、自然保护区和生物多样性重点保护区等生态建设工程取得的成效。图集表现出土地退化、耕地减少、淡水资源不足和污染、草地质量下降、湿地缩减以及森林覆盖率较低,加之自然灾害频发。因此,我国生态状况不容乐观,生态保护和建设任重道远。

图集的编制是一项系统工程,人口环境数据的处理分析和制图,完全建立在应用计算机技术的基础上,为图集编制构建和开发了软、硬件操作平台,其主要工作内容包括:1)对多源异构的人口与环境数据统一整合、校验、选取和加工,最终建立满足图集编制的数据库文件。数据整合包括多达百多种文件和上千项指标的源数据,在指标含义、数据来源、度量单位、使用的标准、代表的年代、地域单元及缺失情况等诸多方面的校核处理、格式转换、表格合并和重组、表格记录同地理基础文件间区域单元匹配,以及建立数据字典等。数据校验包含在数据整合和使用的全过程,对表格、矢量和栅格数据分别采用总计和存在性校验方法和图形输出直观表达数据缺失。最后通过上述加工处理后,建立为图集使用的数据库。2)制图数据分析。了解制图数据特征,是地图设计和表达的一项必要准备,特别是基于统计和监测的数量制图,进行基本的数据分析是不可缺少的重要环节。对统计和监测数据首先是对数据分布的了解,通过制作直方图形式,大致了解数据分布性质,根据数据分布特点,为制图分级提供参考。对时间系列的各类数据,为了解其数值变化特征,计算了各种统计特征值,时间变化的相关指标,以确定制图指标选取。除此之

外，使用了空间插值，多要素叠置、聚类组合等 GIS 分析技术，开展对各类数据的加工处理，使制图数据有较高的科学质量。3) 制图可视化设计和电子地图生成。将数据通过制图可视的方法技术转化为地图图形是图集制作质量的关键。现阶段制图可视化虽有较成熟的软硬件平台，但是成功的运用到地图设计中，必须有仔细的构思和创新。在地图设计中要充分应用丰富多样的表示手段（符号、色彩、文字）使地图表达内容正确、主题突出、层次分明、清晰易读、风格统一。图集可视化中对表示时空变化的符号模型的设计给予特别关注，构思了多种形式的组合图形符号，正确反映人口与环境要素时间变化特点和空间分异规律。地图是严格数学规则的可视图形，为反映制图对象数量特征的时空变化，还要科学构建制图符号标尺，并以此为依据，使地图符号尺寸表达的数量关系正确，适应视觉阅读。高质量的地图集必须做到内容的科学性和表示方法的艺术性完美统一，打造图集成为科学内容传输和艺术感染都达较高水准的作品。

我国首部反映人口与环境变化的大型地图集顺利出版，是在众多部门和机构支持下完成的。图集以丰富的内容表达了建国 60 年我国人口与环境全貌和发展过程，是从事人口与环境研究的科学工作者献给我国建国 60 周年的一份厚礼。

## 5.2 New Book: Web GIS: Principles and Applications by Pinde Fu (Esri) and Jiulin Sun

**Book title:** Web GIS: Principles and Applications

**Authors:** Pinde Fu (Esri), Jiulin Sun (Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences)

**Editor:** Carolyn Schatz

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**Description:**

The Web has revealed the immense value and broad applicability of GIS to e-government, e-business, e-science, and daily life, set the bar for today's user expectations, and introduced flexible architectures for use with modern IT infrastructure. From the roots of Web GIS to new frontiers, Web GIS: Principles and Applications presents a thorough overview of this emerging platform. New concepts and technologies addressed include geospatial Web services and especially REST Web services, geobrowsers, cloud computing, geoportals, mashups, mobile GIS, Gov 2.0, business intelligence, online virtual reality, volunteered geographic information, geotagging, geotargeting, the sensor Web, Semantic Web, JavaScript/Flex/Silverlight APIs, and much more. This book offers a balance of principles, concepts, and techniques to provide readers with a comprehensive understanding of Web GIS. The book's contents originated from the author's teaching materials and thus makes an ideal Web GIS textbook.