Current office:

Pu, Ruiliang

Associate Professor
School of Geosciences
University of South Florida
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EDUCATION

2000 Ph.D., Cartography & Geographic Information System, Chinese Academy of Sciences, China, conducted at College of Natural Resources (CNR), UC Berkeley, USA
Dissertation: An exploratory analysis on *in situ* hyperspectral data of conifer species

1985 M.Sc., Forest Management, Remote Sensing in Forestry, conducted at Nanjing Forestry University (NFU), Nanjing, China.
Thesis: Application of remote sensing techniques in forest environment modeling.

1982 B.Sc., Forestry, NFU, Nanjing, China.
Essay: Aerial photo interpretation for bamboo resource inventory.

ACADEMIC AND PROFESSIONAL INTERESTS

Remote Sensing Image Analysis and Application

- Multi-platform remote sensing analysis in biogeography
- Wildland fire hotspot detection and burn scar mapping
- Retrieval of land surface temperature (LST) from thermal sensors
- Imaging spectrometer data analysis to surface process modeling
- Urban ecological analysis
- Seagrass and coastal wetlands mapping and characterization
- Environmental modeling
- Land use/cover change detection
- Invasive species mapping and monitoring
- Forestland classification and evaluation

Geographic Information System Analysis and Application

- Landscape dynamic planning and evaluating
- Environmental resources management
- Land systems classification
- Natural resources evaluation and monitoring
- Watershed planning and modeling

Quantitative Analysis and Modeling Technologies

- Multivariate and spatial statistical analysis methods
- Geospatial modeling approaches
- Quantitative analysis methods and application
- Neural network analysis in environmental science
- Remote sensing image processing and analysis
- Computer programming in C(VC, C++)/FORTRAN

Major Analysis Software/Tools

- Advanced PCI Geomatica, ERDAS Imagine, & ENVI image analysis systems
- ESRI ArcGIS analysis software
- SAS/Matlab/SPSS/Splus statistical analysis software/tools

EXPERIENCES

Teaching

2012- Associate Professor, School of Geosciences, University of South Florida

2006 -2012 Assistant Professor, Department of Geography, University of South Florida, courses:

- Remote Sensing of the Environment at introductory level
- Advanced Remote Sensing at graduate level
- Research Methods in Geography at undergraduate level
- Readings in Remote Sensing at graduate level
- Environmental Applications of GIS at graduate level

1995-2006 Research Associate, Assistant Research Professor, College of Natural Resources (CNR), The University of California at Berkeley, California, U.S.A.
Courses, seminar and training:

- ESPM 290: GIS/ remote sensing in public health for undergraduate students
- ESPM 298: Advanced remote sensing in natural resources for graduate students
- Hyperspectral remote sensing and its application for graduate students
- Atmospheric correction to satellite imagery for graduate/under graduate students.
- PCI Geomatica, ArcGIS trained to CAMFER's visitors and workers
- Major GPS equipment and spectroradiometer trained to CAMFER's visitors and workers
- Guest lectures: Hyperspectral remote sensing in Nanjing University and Beijing Normal University, China, 30 hours each, in 1999 and 2001 respectively, for graduate students and young scholars.

1993-1994 Associate Professor, Department of Forestry, NFU, Nanjing, China
Courses:

- Remote sensing image processing for graduate students
- Remote sensing in natural resources for graduate and undergraduate students
- Forest resources management for undergraduate students

1985-1992 Assistant Professor, Department of Forestry, NFU, Nanjing, China
Courses:

- Remote sensing in natural resources for undergraduate students

- Forest resources management for undergraduate students

Research

2006- Assistant Professor, Associate Professor, School of Geosciences, University of South Florida.

- Co-PI Comparative study of the impact of coastal artificialization on coastal geomorphology evolution
- Co-PI Predicting i-Tree Ecosystem Services from Remote Sensing Metrics
- Co-PI/Science-PI: Mapping and Characterization of Seagrass Habitats Using Spacecraft Observations
- Co-PI: City of Tampa Urban Ecological Analysis and Management Plan 2010-2012
- PI: Land surface temperature retrieval study with thermal satellite imagery
- PI: Hyperspectral and High Spatial Resolution Data Analysis for mapping Tree Canopy
- Co-PI: City of Tampa Urban Ecological Analysis
- PI: Development of Fire Algorithm with GOES-R ABI Simulated Data
- PI: Urban environmental studies using thermal and optical remote sensing data
- PI: invasive species detection and evaluation in a terrestrial ecosystem using hyperspectral data

2005-2006 Visiting Research Scientist, Earth System Science Interdisciplinary Center, University of Maryland, College Park

- Investigator: biomass burning detection and mapping in North American using NOAA/AVHRR and Terra/MODIS data.
- Investigator: Thresholds of vegetation change following N deposition in southern California ecosystems

1995-2005 Research Associate, Assistant Research professor, CNR, UC Berkeley

- Co-PI: Land surface temperature retrieved from thermal remote sensing images (Landsat/TM/ETM+6, NOAA/AVHRR4&5, Terra/ASTER 13&14 and ITRES/TABI-320) and urban environment studies (e.g., urban heat island phenomenon)
- Co-PI: NASA EO-1 project, verifying EO-1 data (ALI, Hyperion, LAC) for extracting biophysical and biochemical parameters
- Investigator: Monitoring of Sudden Oak Death using CASI hyperspectral data; invasive species mapping using CASI data
- Co-PI: Mapping of historical burn scars (1989 - 2000) of the North America with NOAA/AVHRR data.
- Investigator: Emission estimation in California through wildland fire hotspot detection and burnt scar mapping with NOAA/AVHRR daily data using PCI EASI scripts and modeling
- PI: Tree species identification and biochemistry estimation with *in situ* hyperspectral data using artificial neural networks and spectral derivative techniques

- PI: Irrigate tracts classification and evaluation with Landsat TM imagery and GIS tool
- PI: Land ecosystems classification with DEM, forestry data using artificial neural networks
- Co-PI: Wildlife habitat classification with TM data and using maximum likelihood classifier and artificial neural networks as well as GIS tool

1994-1995 Visiting Research Scientist, Department of Geomatics Engineering, The University of Calgary, Canada.

- Co-PI: Evaluate the potentials of hyperspectral imagery (CASI and AVIRIS) for estimating forest canopy biochemistry and other ecosystem parameters, such as LAI and crown closure.

1992-1994 Associate Professor, Remote Sensing Laboratory, NFU, Nanjing, China

- Co-PI: Exploring and modeling the relationships between vegetation change and environmental elements
- PI: Assessment of forest landscape types for national parks using remote sensing techniques

1990-1992 Visiting Research Scientist, Earth-Observations Laboratory, ISTS, North York, Ontario, Canada.

- Investigator: The Oregon Transect Ecosystem Research project, led by NASA, USA, Analyzing the relationships between hyperspectral image (CASI and AVIRIS) and ecosystem parameters
- Participate: Imaging spectrometry data calibration

1985-1990 Assistant Professor, Remote Sensing Laboratory, NFU, Nanjing, China

- Project leader and PI: Application of remote sensing techniques in protected forest inventory in the coastal zone in China
- Co-PI: Remote sensing image analysis and application in forest resources
- Investigator: Application of remote sensing techniques in forest resources analysis in southern china.

Thesis/dissertation Advisor

2006-

Graduated master thesis:

Cynthia Meyer, master thesis committee director (Fall 2008)
Bruce Mitchell, master thesis committee co-director (Summer 2011)
Fenqing Weng, master thesis committee director (Summer 2012)
James Anderson, master thesis committee member (Summer 2012)
Corey Denninger, master thesis committee member (non- thesis track, Fall 2012)
Elizabeth Ciesla, master thesis committee member (non- thesis track, Fall 2013)
Lance Knowlton master thesis committee member (non- thesis track, Spring 2014)
Kevin Slaughter master thesis committee member (non- thesis track, Fall 2014)
Steven Ulloa, master thesis committee member (Spring 2015)
Lisa Beyer, master thesis committee member (non- thesis track, Fall 2015)
Garrett Speed, master thesis committee member (non- thesis track, Spring 2016)
Brendon Quinton, master thesis committee member (Summer 2016)
Zhaoxu Zhu, master thesis committee member (Fall 2016)

Graduated PhD dissertation:

JoAnn Sullivan, doctoral dissertation committee member (Summer 2010)
Shawn Landry, doctoral dissertation committee member (Summer 2013)
Cynthia Meyer, doctoral dissertation committee director (Fall 2013)
Sandra Kling, doctoral dissertation committee member (Spring 2014)
Jun Cheng, doctoral dissertation committee member (Fall 2015)
Milena Janiec Grygo, doctoral dissertation committee member (Summer 2016)
Julius Anchang, doctoral dissertation committee co-director (Fall 2016)

Current master thesis:

Amor Elder, master thesis committee director
Barbara Nordheim-shelt, master thesis committee director
Carolyn Cheatham Rhodes, master thesis committee member

Current PhD dissertation:

Julie Earls, doctoral dissertation committee director
René Dieter Baumstark, doctoral dissertation committee director
Qiuyan Yu, doctoral dissertation committee director
Qiandong Guo, doctoral dissertation committee director
Yousif Abdullah, doctoral dissertation committee co-director
Bruce Mitchell, doctoral dissertation committee member
Bryan Winter, doctoral dissertation committee member
Rocio Lalanda, doctoral dissertation committee member
Kevin Stofan, doctoral dissertation committee member
Thilanki Rajaguru, doctoral dissertation committee member
Michael Acheampong, doctoral dissertation committee member
Augustine Israel, doctoral dissertation committee member
Michelle Saunders, doctoral dissertation committee member

Services

1997- Referee for reviewing following journals

- Ecological Modelling (USA). 2008-
- IEEE Geoscience and Remote Sensing Letters (USA). 2008-
- IEEE Journal of Selected Topics in Earth Observations and Remote Sensing (USA). 2008-
- Journal of Applied Remote sensing (USA). 2008-
- Computers and Electronics in Agriculture 2007-
- ISPRS Journal of Photogrammetry and Remote Sensing 2007-
- Canadian Journal of Remote Sensing (Canada) 2007-
- Environmental Monitoring and Assessment (Netherlands) 2006-
- Remote Sensing of Environment (USA) 2004-
- IEEE Transactions on Geoscience & Remote Sensing (USA) 2003-
- Photogrammetric Engineering & Remote Sensing (USA) 2002-
- Forest Science (USA) 2002-
- International Journal of Remote Sensing (UK) 1999-
- International Journal of Digital Earth (China) 2008-

- International Journal of Wildland Fire (Australia) 2008-
- The Professional Geographer (USA) 2009-
- Annals of the Association of American Geographers (USA) 2010-
- Journal of Earth Science and Engineering (JESE, USA). 2013-
- Crop Science (USA) 2013-
- Environmental Management (USA) 2013-
- International Journal of Applied Earth Observation and Geoinformation 2013-

1995 -2004 **assistant editor** (Editor-in-Chief : Dr. Peng Gong), *Geographic Information Sciences* (currently *Annals of GIS*), The Association of Chinese Professional in Geographic Information Systems (Abroad).

2015-16 **Guest editor** for a special issue of *Geosciences* (MDPI AG, Basel, Switzerland): "Mapping and Assessing Natural Disasters Using Geospatial Technologies." This special issue consists of 9 papers.

2013-15 **Editorial board member** of *Journal of Earth Science and Engineering* (JESE, USA).

2015- **Editorial board member/Academic editor** of *Remote Sensing* (ISSN 2072-4292 by MDPI).

2016- **Editorial board member/Academic editor** of *Geosciences* (ISSN 2076-3263 by MDPI).

GUEST POSITIONS

2004- • Research Professor, Northeast Institute of Geography and Agricultural Ecology, Chinese Academy of Sciences, Changchun, China.

2002- • Research Professor, Institute of Natural Resources and Regional Planning, Chinese Academy of Agricultural Sciences, Beijing, China.

2001- • Adjunct Professor, College of Forest Resources and Environment, Nanjing Forestry University, Nanjing, China.

RESEARCH GRANTS

(Participation or independent applications)

• R. Pu	National Natural Science Foundation of China Application of Remote Sensing to Shelter Forest in Coastal zone of China	Held	$55k	1988-89
• P. Gong R. Pu	Forestry Canada, Research Contract Land systems Classification	Held	$23k cdn	1993-95
• P. Gong R. Pu	University of California Start-up Grant Forest yield prediction with an artificial neural network	Held	$400k	1993-94
• P. Gong and G. Biging R. Pu	University of California DNAR Special Grant Hyperspectral data analysis for conifer species recognition	Held	$25k	1994-95
• P. Gong R. Pu	USDA AES Grant Integrated analysis for multisource spatial data analysis for ecological studies	Held	$30k/yr.	1994-98

• P. Gong and G. Biging R. Pu	IHRMP Grant Hardwood monitoring using an airborne digital Camera integrated with a low-cost positioning/attitude reference system (will participate this project from this year)	Held	$165k	1995-99
• P. Gong R. Pu	California Air Resource Board Emission estimation through wildland fire hotspot detection and burnt scar mapping with NOAA/AVHRR data	Held	$164k	2000-01
• P. Gong and G. Biging R. Pu	NASA EO-1 Validation Grant EO-1 satellite sensors: ALI, LAC and Hyperion image data validation for extracting Biophysical and biochemistry parameters such as LAI, CC and species identification	Held	$210k	2001-03
• P. Gong R. Pu	NASA North America Historical Fire Mapping Historical burn scar mapping of 1985-2000 for the North American with NOAA/AVHRR data	Held	$300k	2000-03
• P. Gong R. Pu	USDA Agricultural research service Aerial Image Analysis GIS Assessment of Weed Biological Control Efforts	Held	$258,125	2002-05
• P. Gong R. Pu	PASCO Corporation, Japan Land surface temperature retrieved from thermal remote sensing images	Held	$55k	2004-05
• P. Gong R. Pu	NSF, USA Thresholds of vegetation change following N deposition in southern California ecosystems	Held	$220k	2005-10
After moving to USF:				
• R. Pu	NOAA-UMD, USA Development of Fire Algorithm with GOES-R ABI Simulated Data	Held	$20k	2007-09
• R. Pu	Internal Award, USF Hyperspectral and High Spatial Resolution Data Analysis for mapping Tree Canopy	Held	$6,953	2007-08
• Shawn Landry R. Pu (Co-PI)	City of Tampa, FL City of Tampa Urban Ecological Analysis	Held	$100k	2007-08
• R. Pu	Patel Center for Global Solutions, USF International travel funds from The Dr. Kiran C. Patel Center for Global Solutions, USF	Held	$1,000	2008
• R. Pu	CAS, USF Faculty Research & Development Grant	Held	$1,000	2009
• Susan Bell (PI) R. Pu (Sci. PI)	NASA, USA Mapping and Characterization of Seagrass Habitats Using Spacecraft Observations	Held	$359,539	2009-13
• Shawn Landry R. Pu (Co-PI)	City of Tampa, FL City of Tampa Urban Ecological Analysis and Management Plan	Held	$250k	2010-13
• Shawn Landry R. Pu (Co-PI)	USFS, USA Predicting i-Tree Ecosystem Services from Remote Sensing Metrics	Held	$45,978	2014-15
• Jialin Li R. Pu (Co-PI)	National Natural Science Foundation of China Comparative study of the impact of coastal artificialization on coastal geomorphology evolution	Held	$160k (0.98 mil CNY)	2015-18
• Shawn Landry	City of Tampa, FL	Held	$225k	2016-17

R. Pu (Co-PI) 2016 Tampa Tree Canopy Study and Urban Forest Analysis

• Jialin Li	National Natural Science Foundation of China	Held	$362k (2.52 mil CNY) 2017-20

R. Pu (Co-PI) Multi-sensor and Multi-Temporal Remote Sensing Integration Techniques for Coastal Wetland Evolution Monitoring

AWARDS

2010	Board Service Award for outstanding service and dedication as a Board member for 2007-2010, Chinese American Association of Tampa Bay (CAAT).
2001	Outstanding Service Award, The International Association of Chinese Professionals in Geographic Information Science (CPGIS)
1991	Prize of Science Technology, second place, by The Ministry of Forestry of China
1991	The best scientific paper from The Association of Remote Sensing in Jiangsu Province, China
1987	Prize of Science Technology, second place, by Jiangsu Province, China
1988	Prize of Science Technology, third place, by The Ministry of Forestry of China.

PROFESSIONAL AFFILIATION

Member,	American Geophysical Union	2005-
Member,	Association of American Geographers	2003-
Member,	American Society for Photogrammetry & Remote Sensing	1995-
Member,	International Society for Photogrammetry & Remote Sensing	1995-

PUBLICATIONS

Refereed Articles:

2017

[97] Wang, H. K. Lu, and **R. Pu**. 2017. Mapping *Robinia pseudoacacia* forest health in the Yellow River delta by using high resolution IKONOS imagery and object-based image analysis. ***Journal of Applied Remote Sensing,*** In press.

[96] Li, J., L. Yang, **R. Pu,** and Y. Liu, 2017. A review on anthropogenic geomorphology. ***J. Geogr. Sci.*** 2017, 27(1): 109-128.

[95] **Pu, R**., and S. Bell, 2017. Mapping Seagrasses Coverage and Spatial Patterns with High Spatial Resolution IKONOS Imagery. ***International Journal of Applied Earth Observation and Geoinformation***, 54: 145−158.

2016

[94] Lin, H. **R. Pu**, L. Wang, C. Li, and C. Shao, 2016. High-Spectral Inversion Based on Characteristic Band in the Three-River Headwater Region of Soil Total-Nitrogen. ***International Journal of Simulation -- Systems, Science & Technology***. 17(19): 15.1−15.14. 14p. DOI:10.5013/IJSSST.a.17.25.15.

[93] Guo, Q., **R. Pu**, and J. Cheng, 2016. Anomaly detection from hyperspectral remote sensing imagery. ***Geoscineces***, 6, 56; doi:10.3390/geosciences6040056. (http://www.mdpi.com/journal/geosciences).

[92] Zhang, H., **R. Pu**, and X. Liu, 2016. A new image processing procedure integrating PCI-RPC and ArcGIS-Spline tools to improve the orthorectification accuracy of high resolution satellite imagery. ***Remote Sensing***, 8: 827 (1−16), doi:10.3390/rs8100827.

[91] Baumstark, R. R. Duffey, and **R. Pu**, 2016. Mapping seagrass and colonized hard bottom in Springs Coast, Florida using WorldView-2 satellite imagery. ***Estuarine, Coastal and Shelf Science,***

181:83−92.
[90] Anchang, J., E. Ananga, and **R. Pu**, 2016. An efficient unsupervised index based approach for mapping urban vegetation from IKONOS imagery. ***International Journal of Applied Earth Observation and Geoinformation***. 50: 211–220.
[89] Yang, G., Q. Weng, **R. Pu**, F. Gao, C. Sun, H. Li, and C. Zhao, 2016. Evaluation of ESTARFM based algorithm for generating land surface temperature products by fusing ASTER and MODIS data during the HiWATER-MUSOEXE. ***Remote Sensing***, 8, 75 (1−25), doi:10.3390/rs8010075.
[88] Zhang, M., Z. Gong, W. Zhao, **R. Pu**, and K. Liu, 2016. Estimating wetland vegetation abundance from Landsat-8 OLI imagery: A comparison between linear spectral mixture analysis and multinomial logit modeling methods. ***Journal of Applied Remote Sensing***, 10(1), 015005 (Jan – Mar., 2016). doi:10.1117/1.JRS.10.015005.
[87] Yuan, L., **Pu, R.**, Zhang, J. Wang, J., Yang, H. Yang, G., 2016. Using high spatial resolution satellite imagery for mapping powdery mildew at a regional scale. ***Precision Agriculture***, 17(3):332−348.
[86] Guo, Q., **R. Pu**, L. Gao, and B. Zhang, 2016. A Novel Anomaly Detection Method Incorporating Target Information Derived from Hyperspectral Imagery. ***Remote Sensing Letter***, 7(1): 11−20, DOI:.1080/2150704X.2015.1101177

2015

[85] Yang, G., C. Zhao, **R. Pu**, H. Feng, Z. Li, H. Li., and C. Sun, 2015. Leaf nitrogen spectral reflectance model of winter wheat (*Triticum aestivum*) based on PROSPECT: simulation and inversion. ***Journal of Applied Remote Sensing***, 9(1), 095976 (Dec 23, 2015). doi:10.1117/1.JRS.9.095976
[84] Lin, H., Y. Tian, **R. Pu**, and L. Liang, 2015. Remotely sensing image fusion based on wavelet transform and human vision system. ***International Journal of Signal Processing, Image Processing and Pattern Recognition***, 8(7): 291−298.
[83] Wang, H., Y. Zhao, **R. Pu**, and Z. Zhang, 2015. Mapping *Robinia pseudoacacia* forest health conditions by using combined spectral, spatial and textural information extracted from IKONOS imagery and random forest classifier. ***Remote Sensing***, 7: 9020−9044.
[82] **Pu, R**., and J. Cheng, 2015. Mapping Forest Leaf Area Index Using Reflectance and Textural Information Derived from WorldView-2 Imagery in a Mixed Natural Forest Area in Florida, USA. ***International Journal of Applied Earth Observation and Geoinformation***. 42:11−23.
[81] Wang, H., **R. Pu**, Q. Zhu, L. Ren, and Z. Zhang, 2015. Mapping health levels of *Robinia pseudoacacia* forests in the Yellow River delta, China, using IKONOS and Landsat 8 OLI imagery. ***International Journal of Remote Sensing***, 36(4):1114−1135.
[80] **Pu, R**., S. Landry, and J., Zhang, 2015. Evaluation of atmospheric correction methods in identifying urban tree species with WorldView-2 imagery. ***Journal of Selected Topics in Applied Earth Observations and Remote Sensing***, 8(5):1886−1897.
[79] Gong, Z., T. Cui, **R. Pu**, C. Lin, and Y. Chen, 2015. Dynamic simulation of vegetation abundance in a reservoir riparian zone using a sub-pixel Markov model. ***International Journal of Applied Earth Observation and Geoinformation***, 35:175−186.
[78] **Pu, R**., S. Bell, and D. English, 2015. Developing hyperspectral vegetation indices for identifying seagrass species and cover classes. ***Journal of Coastal Research***, 31(3):595−615, DOI: 10.2112/JCOASTRES-D-12-00272.1

2014

[77] Lin, H., **R. Pu**, C. Zhao, and Z. Hu, 2014. Remote sensing image fusion based on the combination grey absolute correlation degree and IHS transform. ***Sensors & Transducers***, 183(12): 177−183.
[76] Huang, W., Q. Yang, **R. Pu**, and S. Yang, 2014. Estimation of nitrogen vertical distribution by bi-directional canopy reflectance in winter wheat. ***Sensors***, 14:20347−20359; doi:10.3390/s141120347.
[75] **Pu, R**., S. Bell, and C. Meyer, 2014. Mapping and Assessing Seagrass Bed Changes in Central Florida's West Coast Using Multitemporal Landsat TM Imagery. ***Estuarine, Coastal and Shelf Science***, 149: 68−79. DOI: 10.1016/j.ecss.2014.07.014
[74] Zhang, J., **R. Pu**, L. Yuan, W. Huang, C. Nie, and G. Yang, 2014. Integrating remotely sensed and meteorological observations to forecast wheat powdery mildew at a regional scale. ***Journal of Selected Topics in Applied Earth Observations and Remote Sensing***. 7(11):4328−4339. DOI: 10.1109/JSTARS.2014.2315875
[73] Zhang, J., **R. Pu**, L. Yuan, C. Zhao, J. Wang, W. Huang, and G. Yang, 2014, Monitoring powdery mildew of winter wheat by using moderate resolution multi-temporal satellite imagery, ***PLOS ONE***, 9(4): e93107. doi:10.1371/journal.pone.0093107

[72] Wang, H., J. Gao, **R. Pu**, L. Ren, Y. Kong, H. Li, and L. Li, 2014, Natural and anthropogenic influences on a red-crowned crane habitat in the Yellow River Delta Natural Reserve, 1992−2008. ***Environmental Monitoring and Assessment*** 186:4013−4028.
[71] Liu, L., W. Huang, **R. Pu**, and J. Wang, 2014, Detection of internal leaf structure deterioration using a new spectral ratio index in the near-infrared shoulder region. ***Journal of Integrative Agriculture*** 13(4): 760-769
[70] Yang, G., **R. Pu**, C. Zhao, X. Xue, 2014. Estimating high spatiotemporal resolution evapotranspiration over a winter wheat field using an IKONOS image based complementary relationship and Lysimeter observations. ***Agricultural Water Management***, 133:34−43.
[69] Zhang, J., L. Yuan, **R. Pu**, R. W. Loraamm, and J. Wang, 2014. Comparison between wavelet spectral features and conventional spectral features in detecting yellow rust for winter wheat. ***Computers and Electronics in Agriculture***, 100:79−87.

2013

[68] **Pu, R**.; and S. Bell, 2013. A protocol for improving mapping and assessing of seagrass abundance along the West Central Coast of Florida using Landsat TM and EO-1ALI/Hyperion images. ***ISPRS Journal of Photogrammetry and Remote Sensing***, 83:116–129.
[67] Weng, F. and **R. Pu**, 2013, Mapping and Assessing of Urban Impervious Areas Using Multiple Endmember Spectral Mixture Analysis: A Case Study in the City of Tampa, Florida. ***Geocarto International,*** 28(7):594−615.DOI: 10.1080/10106049.2013.764355.
[66] Yang, G., **R. Pu**, J. Zhang, C. Zhao, H. Feng, and J. Wang, 2013. Remote sensing of seasonal variability of fractional vegetation cover and its object-based spatial pattern analysis over mountain areas, ***ISPRS Journal of Photogrammetry and Remote Sensing***, 77:79−93.
[65] Zhao, Y., **R. Pu**, S. Bell, C. Meyer, L. Baggett, and X. Geng, 2013, Hyperion image optimization in coastal waters, ***IEEE Transactions on Geoscience and Remote Sensing***, 51(2):1025−1036. DOI:10.1109/TGRS.2012.2205262.

2012

[64] **Pu, R**.; Bell, S.; Meyer, C.; Lesley Baggett, L., and Zhao, Y., 2012. Mapping and Assessing Seagrass Habitats Using Satellite Imagery. ***Estuarine, Coastal and Shelf Science***, 115: 234−245. http://dx.doi.org/10.1016/j.ecss.2012.09.006.
[63] Zhang, J., **R. Pu**, W. Huang, J. Luo and J. Wang, 2012, Using hyperspectral remote sensing for detecting and discriminating yellow rust disease from nutrient stresses, ***Field Crop Research***, 134:165−174.
[62] **Pu, R**., and S. Landry, 2012, A comparative analysis of high resolution IKONOS and WorldView-2 imagery for mapping urban tree species, ***Remote Sensing of Environment***,124:516−533.
[61] **Pu, R**., S. Bell, L. Baggett, C. Meyer1, and Y. Zhao, 2012, Discrimination of seagrass species and cover classes with in situ hyperspectral data, ***Journal of Coastal Research***, 28(6):1330−1344, DOI: 10.2112/JCOASTRES-D-11-00229.1
[60] **Pu, R**., 2012, Mapping leaf area index over a mixed natural forest area using ground-based measurements and Landsat TM imagery. ***International Journal of Remote Sensing*** 33(20): 6600–6622
[59] George Xian, Collin Homer, Brett Bunde, Patrick Danielson, Jon Dewitz, Joyce Fry & **Ruiliang Pu** 2012, Quantifying urban land cover change between 2001 and 2006 in the Gulf of Mexico region, ***Geocarto International***, 27(6): 479–497, DOI:10.1080/10106049.2011.652675
[58] Zhang, J**., R. Pu**, J. Wang, and W. Huang, 2012, Detecting powdery mildew of winter wheat using leaf level hyperspectral measurements, ***Computers and Electronics in Agriculture***, 85:13−23
[57] Meyer, C. and **R. Pu**, 2012, Assessment of Seagrass Resources using Remote Sensing Methods in St. Joseph Sound and Clearwater Harbor, Florida, U.S.A. ***Environmental Monitoring and Assessment*** 184:1131–1143.
[56] **Pu, R**., 2012, Comparing canonical correlation analysis with partial least square regression in estimating forest leaf area index with multitemporal Landsat TM imagery, ***GIScience & Remote Sensing***, 49(1): 92–116. DOI: 10.2747/1548-1603.49.1.92

2011

[55] Okwen, R. T., **R. Pu**, and J. A. Cunningham, 2011, Remote sensing of temperature variations around major power plants as point sources of heat. ***International Journal of Remote Sensing,*** 32(13): 3791−3805, doi.org/10.1080/01431161003774723.
[54] **Pu, R**., S. Landry, and Q. Yu, 2011, Object-Based Urban Detailed Land Cover Classification with

High Spatial Resolution IKONOS Imagery. ***International Journal of Remote Sensing***, 32(12): 3285−3308, doi.org/10.1080/01431161003745657.

[53] **Pu, R**. and D. Liu, 2011, Segmented canonical discriminant analysis of in situ hyperspectral data for identifying thirteen urban tree species. ***International Journal of Remote Sensing***, 32(8):2207−2226, DOI: 10.1080/01431161003692040.

[52] Sun Y., H. Gong, X. Li, **R. Pu**, and S. LI, 2011, Extracting eco-hydrological information of inland wetland from L-band synthetic aperture Radar image in Honghe National Nature Reserve, northeast China. ***Chin. Geogra. Sci.***, 21(2):241−248, doi: 10.1007/s11769-011-0460-6.

[51] Yang, G., **R. Pu**, C. Zhao, W. Huang, and J. Wang, 2011, Estimation of subpixel land surface temperature using an endmember index based technique: A case examination on ASTER and MODIS temperature products over a heterogeneous area, ***Remote Sensing of Environment***, 115:1202-1219.

[50] **Pu, R.**, 2011, Mapping urban forest tree species using IKONOS imagery: Preliminary results. ***Environmental Monitoring and Assessment***, 172: 199−214, DOI 10.1007/s10661-010-1327-5.

2010

[49] Yang, G., **R. Pu**, W. Huang, J. Wang, and C. Zhao, 2010, A novel method to estimate subpixel temperature by fusing solar-reflective and thermal-infrared remote-sensing data with an artificial neural network. ***IEEE Transactions on Geoscience and Remote Sensing***, 48(4):2170−2178.

[48] Landry, S. and **R. Pu**, 2010, The impact of land development regulation on residential tree cover: an empirical evaluation using high resolution IKONOS imagery, ***Landscape and Urban Planning***, 94: 94–104.

2009

[47] Song, X. J. Wang, W. Huang, L. Liu, G. Yan, & **R. Pu**, 2009, The delineation of agricultural management zones with high resolution remotely sensed data. ***Precision Agric***., 10:471–487.

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