Accuracy assessment

Accuracy assessment–Area-based

Accuracy assessment–Bundle adjustment
Basic Products of the ZiYuan-3 Satellite and Accuracy Evaluation. Hongbo Pan, Guo Zhang, Xinming Tang, Deren Li, Xiao Yong Zhu, Ping Zhou, and Yonghua Jiang. December: 1131-1145

Accuracy assessment–Calibration

Accuracy assessment–Change quantification

Accuracy assessment–DEM

Accuracy assessment–Elevation

Accuracy assessment–FKS classifier
Developing an Object-based Hyperspatial Image Classifier with a Case Study Using WorldView-2 Data. Harini Sridharan and Fang Qiu. November: 1027–1036

Accuracy assessment–Geolocation

Accuracy assessment–Horizontal
Mapping Matters. Qassim A. Abdullah. May: 404–405

Accuracy assessment–Image classification

Accuracy assessment–Image product
Metrically Preserving The USGS Aerial Film Archive. Donald Moe and Ryan Longhenry. March: 225–228

Accuracy assessment–Lidar

Accuracy assessment–Map
Applicability of Multi-date Land Cover Mapping using Landsat-5 TM Imagery in the Northeastern US. Meghan Graham MacLean and Russell G. Congalton. April: 359–368

Accuracy assessment–RFM

Accuracy assessment–Matching
Improved Nonsampled Contourlet Transform for Multi-sensor Image Registration. Ruirui Wang, Jianwen Ma, Huaguo Huang, and Wei Shi. January: 51–66

Accuracy assessment–OBIA cover

Accuracy Assessment–Optical images

Accuracy assessment–Positional

Accuracy assessment–RFM
Rational Function Model in Processing Historical Aerial Photographs. Ruijin Ma. April: 337–345

Accuracy assessment–Statistical

Accuracy assessment–Vector parcel maps

Adapting neutral models

Adaptive segmentation
Adaptive shrink operator (ASO)  
Improved Nonsubsampled Contourlet Transform for Multi-sensor Image Registration. Ruirui Wang, Jianwen Ma, Huagu Huang, and Wei Shi. January: 51–66

Adaptive template matching algorithm  

Adaptive Wiener filter (AWF)  

Advanced Land Observing Satellite (ALOS)  

Advanced synthetic aperture radar (ASAR)  
Combining Hyperspectral and Radar Imagery for Mangrove Leaf Area Index Modeling. Frankie K. K. Wong and Tung Fung. May: 479–490

Advanced very high resolution radiometer (AVHRR) images  

Aerial camera system  
Guidelines for the In Situ Geometric Calibration of the Aerial Camera System. July: 590–595

Aerial film archive  
Metrically Preserving The USGS Aerial Film Archive. Donald Moe and Ryan Longhenry. March: 225–228

Aerial imagery  
Forward: Special Issue on Mobile Mapping for Disaster Relief. David Alvarez, Piero Boccardo, Maria Antonia Brovelli, Fabio Giulio Tonolo, and Marguerite Madden. October: 901–903

Pedestrian Network Extraction from Fused Aerial Imagery (Orthoimages) and Laser Imagery (Lidar). Piyawan Kasemsuppakorn and Hassan A. Karimi. April: 369–379

Registration of Aerial Imagery and Lidar Data in Desert Areas Using the Centroids of Bushes as Control Information. Na Li, Xianfeng Huang, Fan Zhang, and Le Wang. August: 743–752

Aerial photogrammetry  


Aerial photographs  


Rational Function Model in Processing Historical Aerial Photographs. Ruijin Ma. April: 337–345

Agricultural drought–Global  

Airborne discrete-return lidar  
A Multi-Scale Approach to Mapping Canopy Height. Gordon M. Green, Sean C. Ahearn, and Wenge Ni-Meister. February: 183–194

Airborne laser scanning (ALS)  


Airborne lidar data  


Towards Integration of GLAS into a National Fuel Mapping Program. Birgit Peterson, Kurtis Nelson, and Bruce Wylie. February: 175–183

Airborne multispectral images  

Airborne three-line-array (TLA) push-broom cameras  

Airborne topographic lidar  

Airborne visible/infrared imaging spectrometer (AVIRIS)  

Aircraft  

Alaska  
Towards Integration of GLAS into a National Fuel Mapping Program. Birgit Peterson, Kurtis Nelson, and Bruce Wylie. February: 175–183

ArcGIS Image Services  
Artificial neural networks (ANN)

Asian Association on Remote Sensing (AARS)

ASPRS
ASPRS Accuracy Standards for Digital Geospatial Data. December: 1073-1084
ASPRS Board of Directors 2013-2014. June: 516
ASPRS Certification Program Accredited by CESB. February: 123
ASPRS Executive Director James Plasker Announces His Retirement. September: 779
ASPRS Lidar Division Releases First LAS Domain Profile. September: 778
ASPRS Vice Presidential Candidates for 2014. December: 1091
Cardinal Systems’ Mike Kitaiif Honored as 2013 ASPRS Florida Region Member of the Year. November: 991
2013 GeoLeague Challenge Winner. June: 498
Lynn Usery Elected as ASPRS Vice President. April: 331
Letter from the PE&RS Executive Editor. Kim Tilley. December: 1091
Photo Science’s Christie and Coleman Elected NCR ASPRS Officers. December: 1092
Pierre le Roux Elected as Assistant Director of the Primary Data Acquisition Division. April: 331
Proposed Bylaws Amendment — Sustaining Members Council (SMC) Electoral/Ac- cension Process. November: 993
Reviewers for 2012. April: 324
Student Advisory Council (SAC). January: 12
Student Advisory Council (SAC) Selects New Members. August: 687
Young Professional Council (YPC) to Launch Mentor Program and Development Plan for Associate Members. August: 687

ASPRS Foundation. May: 411
ASPRS–Sustaining members. See Corporate description
ASTER temperature-emissivity separation (ASTER_TES)

Asturias region

Atmospheric correction
Australia

Backscatter
Combining Hyperspectral and Radar Imagery for Mangrove Leaf Area Index Modeling. Frankie K. K. Wong and Tung Fung. May: 479-490

Band clustering (BC)

Band grouping (BG)

Bandung City

Bare-earth DEM
Mapping Matters. Qassim A. Abdullah. May: 404–405

Bayes error rate of classification

Bayesian-based building extraction
Hierarchical Method of Urban Building Extraction Inspired by Human Perception. Chao Tao, Yihua Tan, and Zheng-rong Zou. December: 1109-1119

Bayesian regression tree modeling

Belarus

Biodiversity
Spatio-statistical Predictions of Vernal Pool Locations in Massachusetts: Incorporat-
Subject Index

<table>
<thead>
<tr>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
</tr>
</tbody>
</table>

**Book reviews**

An Introduction to Contemporary Remote Sensing by Weng, Qihao. Reviewed by Schill, Steven R. September: 777

An Introduction to Using GIS in Marine Biology by MacLeod, Colin D. Reviewed by Wedding, Lisa M. December: 1089-1090


Environmental Tracking for Public Health Surveillance by Morain, Stanley A. and Budge, Amelia M. Reviewed by Lodhi, Mahtab A. October: 891

Lights of Manking: The Earth at Night as Seen from Space by Keeney, L. Douglas. Reviewed by Llamas, John S. January: 11


Synthetic Aperture Radar Polarimetry by Van Zyl, Jakob and Kim, Yunjin. Reviewed by Miliareis, George Ch. August: 685


Bootstrap


Bore sight adjustment


Bozina and Herzegovina


British Columbia


Building roof heat loss


Buildings

Hierarchical Method of Urban Building Extraction Inspired by Human Perception. Chao Tao, Yihua Tan, and Zheng-rong Zou. December: 1109-1119


Bundle adjustment

Basic Products of the ZiYuan-3 Satellite and Accuracy Evaluation. Hongbo Pan, Guo Zhang, Ximeng Tang, Deren Li, Xiaoyong Zhu, Ping Zhou, and Yonghua Jiang. December: 1131-1145


Burma


Bushes

Registration of Aerial Imagery and Lidar Data in Desert Areas Using the Centroids of Bushes as Control Information. Na Li, Xianfeng Huang, Fan Zhang, and Le Wang. August: 743–752

C

Calibration parameters


California


cal/val (calibration/validation) process


Camera calibration


Guidelines for the In Situ Geometric Calibration of the Aerial Camera System. July: 590–595

Photogrammetric Techniques for the De-


Camera models
Rational Function Model in Processing Historical Aerial Photographs. Ruijin Ma. April: 337–345

Camera parameters
Registration of Aerial Imagery and Lidar Data in Desert Areas Using the Centroids of Bushes as Control Information. Na Li, Xianfeng Huang, Fan Zhang, and Le Wang. August: 743–752


Canada


Canadian Consortium for Lidar Environmental Applications Research (C-CLEAR)

Canopy


Canopy density metrics

Canopy fuel parameters
Towards Integration of GLAS into a National Fuel Mapping Program. Birgit Peterson, Kurtis Nelson, and Bruce Wylie. February: 175–183

Canopy height model (CHM)

A Multi-Scale Approach to Mapping Canopy Height. Gordon M. Green, Sean C. Ahearn, and Wenge Ni-Meister. February: 183–194

Cartographic models

CCD sensors

Ceanothus cover

Cellular automata (CA)-based MCM

Certification

Change detection
Change Detection and Deformation Analysis in Point Clouds: Application to Rock Face Monitoring. Marco Scaioni, Riccardo Roncella, and Mario Ivan Alba. May: 441–455


Change threshold methods

Chile

CIR Imagery

Classification

Classification accuracy. See also Accuracy Assessment
Subject Index


Classification accuracy—Class-weighted

Classification accuracy—Coffee-forest landscapes

Classification accuracy—Image

Applicability of Multi-date Land Cover Mapping using Landsat-5 TM Imagery in the Northeastern US. Meghan Graham MacLean and Russell G. Congalton. April: 359–368


Classification technique—Object-based
Developing an Object-based Hyperspatial Image Classifier with a Case Study Using WorldView-2 Data. Harini Sridharan and Fang Qiu. November: 1027–1036

Parcel-Level Identification of Crop Types Using Different Classification Algorithms and Multi-Resolution Imagery in Southeastern Turkey. Ugur Alganci, Elif Sertel, Mutlu O兹dogan, and Cankut OrmeCI. November: 1053–1065

Classification technique—Pixel-based
Parcel-Level Identification of Crop Types Using Different Classification Algorithms and Multi-Resolution Imagery in Southeastern Turkey. Ugur Alganci, Elif Sertel, Mutlu Ozdogan, and Cankut OrmeCI. November: 1053–1065

Classification technique—Point-based supervised

Classifier ensemble system


Developing an Object-based Hyperspatial Image Classifier with a Case Study Using WorldView-2 Data. Harini Sridharan and Fang Qiu. November: 1027–1036


Classification accuracy—Mapping


Classification and regression tree (CART) technique
Applicability of Multi-date Land Cover Mapping using Landsat-5 TM Imagery in the Northeastern US. Meghan Graham MacLean and Russell G. Congalton. April: 359–368


Cloudiness analysis

Clustering

Coarse elevation map (CEM)

Coarse resolution mapping

Coffee agroforests

Collateral geodetic techniques
Subject Index

Color invariant transform

Commission errors

Community-based research

Comparative studies
An Experimental Comparison of Semi-supervised Learning Algorithms for Multispectral Image Classification. Emmei Tu, Jie Yang, Jiangxiong Fang, Zhenghong Jia, and Nikola Kasabov. April: 347–357

Applicability of Multi-date Land Cover Mapping using Landsat-5 TM Imagery in the Northeastern US. Meghan Graham MacLean and Russell G. Congalton. April: 359–368

Classification and Accuracy Assessment for Coarse Resolution Mapping within the Great Lakes Basin, USA. John S. Liames and Ross S. Lunetta. November: 1015–1026


A Multi-Scale Approach to Mapping Canopy Height. Gordon M. Green, Sean C. Ahearn, and Wenge Ni-Meister. February: 183–194


Compression scheme–Lossless

Coordinate systems (CS)
Flat-Earth Thinking Removed. Harold Schuch. August: 677–679


Corporate description
Airborne Sensing Corporation. March: 239

SIMEPAR Institute of Technology. October: 894

Correlation analysis


Combining Hyperspectral and Radar Imagery for Mangrove Leaf Area Index Modeling. Frankie K. K. Wong and Tung Fung. May: 479–490

Improved Nonsubsampled Contourlet Transform for Multi-sensor Image Registration. Ruirui Wang, Jianwen Ma, Huaguo Huang, and Wei Shi. January: 51–66

Crisis mapping

Crop–Agricultural
Parcel-Level Identification of Crop Types Using Different Classification Algorithms and Multi-Resolution Imagery in Southeastern Turkey. UguR Alganci, Elif Sertel, Mutlu Ozdogan, and Cankut OrmeCI. November: 1053–1065


Cross-correlation analysis (CCA)

Crossroad camera calibration range specification
Guidelines for the In Situ Geometric Calibration of the Aerial Camera System. July: 590–595

Crowd-generated information


Cubist regression trees

Curve matching classifiers

Data acquisition

Change Detection and Deformation Analysis in Point Clouds: Application to Rock Face Monitoring. Marco Sciaioni, Riccardo Roncella, and Mario Ivan Alba. May: 441–455

Combining Hyperspectral and Radar Imagery for Mangrove Leaf Area Index Modeling. Frankie K. K. Wong and Tung Fung. May: 479–490

Forward: Special Issue on Mobile Mapping for Disaster Relief. David Alvarez, Piero Boccardo, Maria Antonia Brovelli, Fabio Giulio Tonolo, and Marguerite Madden. October: 901–903

PHOTOGRA METRIC ENGINEERING & REMOTE SENSING 2013 Annual Index 7
Subject Index


Data analysis
Rational Function Model in Processing Historical Aerial Photographs. Ruijin Ma. April: 337–345

Data collection


A Multi-Scale Approach to Mapping Canopy Height. Gordon M. Green, Sean C. Ahearn, and Wenge Ni-Meister. February: 183–194


Data compression

Data dissemination


Data fusion
A Multi-Scale Approach to Mapping Canopy Height. Gordon M. Green, Sean C. Ahearn, and Wenge Ni-Meister. February: 183–194

Data preparation
Pedestrian Network Extraction from Fused Aerial Imagery (Orthoimages) and Laser Imagery (Lidar). Piyawan Kasemsup-pakorn and Hassan A. Karimi. April: 369–379


Data privacy

Data processing
Generation and Dissemination of a National Virtual 3D City and Landscape Model for the Netherlands. Sander Oude Elberink, Jantien Stoter, Hugo Ledoux, and Tom Commandeur. February: 147–158

Guidelines for the In Situ Geometric Calibration of the Aerial Camera System. July: 590–595


Data quality. See also Accuracy assessment

Data segmentation


Data selection

Dataset


Improved Nonsubsampled Contourlet Transform for Multi-sensor Image Registration. Ruirui Wang, Jianwen Ma, Huaguo Huang, and Wei Shi. January: 51–66


A Multi-Scale Approach to Mapping Canopy Height. Gordon M. Green, Sean C. Ahearn, and Wenge Ni-Meister. February: 183–194

Rational Function Model in Processing Historical Aerial Photographs. Ruijin Ma. April: 337–345


Dataset--Geospatial
The Effects of Data Selection and Thematic
Detail on the Accuracy of High Spatial
Resolution Wetland Classifications, Jo-
seph F. Knight, Bryan P. Tolcser, Jennifer
M. Corcoran, and Lian P. Rampi. July:
613–623

Dataset--Heterogeneous laser scanning
A Framework for the Registration and Seg-
mentation of Heterogeneous Lidar Data.
M. Al-Durgham and A. Habib. February:
135–145

Dataset--National three-dimensional (3D)
Generation and Dissemination of a National
Virtual 3D City and Landscape Model
for the Netherlands. Sander Oude Elber-
ink, Jantien Stoter, Hugo Ledoux, and
Tom Commandeur. February: 147–158

Dataset--Three-dimensional
Towards Integration of GLAS into a Na-
tional Fuel Mapping Program. Birgit Pe-
terson, Kurtis Nelson, and Bruce Wylie.
February: 175–183

Data sources
A Spatial-Spectral Methodology to Detect
Narrow Shadows on Satellite Imagery: A Case Study of Calgary, Canada.
Ying Zhang and Bert Guindon. March:
269–276

Worldwide Elevation Data via Web-Based
Image Services. Cody Benkelman and
Peter Becker. February: 111–114

Datums
Grids & Datums Column: Bosnia and Her-
zegovina. Clifford J. Mugnier. March:
229–230

Grids & Datums Column: Federal Republic
of Somalia. Clifford J. Mugnier. Septem-
ber: 775

Grids & Datums Column: Islamic Republic
of Iran. Clifford J. Mugnier. August:
683–684

Grids & Datums Column: Montenegro. Clif-
ford J. Mugnier. December: 1087

Grids & Datums Column: Republic of
Belarus. Clifford J. Mugnier. February:
115–116

Grids & Datums Column: Republic of Mold-
ova. Clifford J. Mugnier. May: 403,
May: 405

Grids & Datums Column: Republic of Ne-

Grids & Datums Column: Republic of Rwand-

Grids & Datums Column: Republic of Ser-
bia. Clifford J. Mugnier. July: 597, July:
603

Grids & Datums Column: Republic of The
Gambia. Clifford J. Mugnier. January:
7–8

Grids & Datums Column: State of Burma.
Clifford J. Mugnier. October: 887–888,
October: 890

Grids & Datums Column: Togolese Re-
public. Clifford J. Mugnier. November:
987–988

Decision support system
Design and Function of the European For-
est Fire Information System. Daniel
McInerney, Jesus San-Miguel-Ayanz,
Paolo Corti, Ceri Whitmore, Cristiano
Giovando, and Andrea Camia. October:
965–973

Decision-theoretic rough set model
(DTRSFM)
Selecting Key Features for Remote Sens-
ing Classification by Using Decision-
Theoretic Rough Set Model. Feng Xie,
Dongmei Chen, John Meligrana, Yi Lin,
and Wenwei Ren. September: 787–797

Decision tree classifier
The Effects of Data Selection and Thematic
Detail on the Accuracy of High Spatial
Resolution Wetland Classifications, Jo-
seph F. Knight, Bryan P. Tolcser, Jennifer
M. Corcoran, and Lian P. Rampi. July:
613–623

Decompression
LASSIP: Lossless Compression of Li-
dar Data. Martin Isenburg. February:
208–218

Defense Meteorological Satellite Pro-
gram’s Operational Linescan System
(DMSP OLS)
It Used To Be Dark Here: Geolocation Cali-
bration of the Defense Meteorological
Satellite Program Operational Linescan
System. Benjamin T. Tuttle, Sharylon J.
Anderson, Paul C. Sutton, Christopher
D. Elvidge, and Kim Baugh. March:
287–297

Deformation analysis
Change Detection and Deformation Analy-
sis in Point Clouds: Application to Rock
Face Monitoring. Marco Scainoni, Ricca-
ordo Roncella, and Mario Ivan Alba. May:
441–455

Developing Efficient Procedures for Auto-
mated Sinkhole Extraction from Lidar
DEMs. Xin Miao, Xiaomin Qiu, Shuo-
Sheng Wu, Jun Luo, Douglas R. Gouzie,
and Hongjie Xie. June: 545–554

Influence of a Dense, Low-height Shrub

3D Elevation Program (3DEP)
The Benefits ofImproved National Elevation
Data. Gregory I. Synder. February:
105–110

Desert areas
Registration of Aerial Imagery and Lidar
Data in Desert Areas Using the Centroids
of Bushes as Control Information. Na
Li, Xianfeng Huang, Fan Zhang, and Le
Wang. August: 743–752

Differential evolution (DE) optimization
algorithm
Remote Sensing-based House Value Estima-
tion Using an Optimized Regional Re-
gression Model. Zhenyu Lu, Jungho Im,
Lindi J. Quackenbush, and Sanglim Yoo.
September: 809–820

Differential synthetic aperture radar inter-
ferometry (DINSAR)
Land Subsidence Characteristics in Band-
ung City, Indonesia as Revealed by
Spaceborne Geodetic Techniques and
Hydrogeological Observations. R.S.
Chatterjee, Moh. Fifi k Syafi udin, and

Digital aerial camera
Registration of Optical Images with Lidar
Data and Its Accuracy Assessment. Shu-
nyi Zheng, Rongyong Huang, and Yang
Zhou. August: 731–741

Surveyor Switches to Digital Aerial Cam-
era, Efficiently Captures High-Quality

Digital airborne camera imagery
Mapping Matters. Qassim A. Abdullah. Feb-
ruary: 119–120

Digital elevation model (DEM)
Basic Products of the ZiYuan-3 Satellite and
Accuracy Evaluation. Hongbo Pan, Guo
Zhang, Xinxing Tang, Deren Li, Xiaoy-
ong Zhu, Ping Zhou, and Yonghua Jiang.
December: 1131–1145

Change Detection and Deformation Analy-
sis in Point Clouds: Application to Rock
Face Monitoring. Marco Scainoni, Ricca-
ordo Roncella, and Mario Ivan Alba. May:
441–455

Developing Efficient Procedures for Auto-
mated Sinkhole Extraction from Lidar
DEMs. Xin Miao, Xiaomin Qiu, Shuo-
Sheng Wu, Jun Luo, Douglas R. Gouzie,
and Hongjie Xie. June: 545–554

Influence of a Dense, Low-height Shrub
Subject Index


Digital Imaging and Remote Sensing Image Generation (DIRSIG) simulation environment


Digital parcel maps


Digital surface model (DSM)

Basic Products of the ZiYuan-3 Satellite and Accuracy Evaluation. Hongbo Pan, Guo Zhang, Xinming Tang, Deren Li, Xiaoyong Zhu, Ping Zhou, and Yonghua Jiang. December: 1131-1145

Digital terrain model (DTM)


Direct linear transformation (DLT)

Registration of Aerial Imagery and Lidar Data in Desert Areas Using the Centroids of Bushes as Control Information. Na Li, Xianfeng Huang, Fan Zhang, and Le Wang. August: 743–752

Disaster management


Forward: Special Issue on Mobile Mapping for Disaster Relief. David Alvarez, Piero Boccardo, Maria Antonia Brovelli, Fabio Giulio Tonolo, and Marguerite Madden. October: 901–903

Discrete wavelet transform


Downsizing process

A Multi-Scale Approach to Mapping Canopy Height. Gordon M. Green, Sean C. Ahearn, and Wenge Ni-Meister. February: 183–194

Drought information systems


Dynamic images services


Earth

Flat-Earth Thinking Removed. Harold Schuch. August: 677–679

Lights of Manking: The Earth at Night as seen from Space by Keeney, L. Douglas. Reviewed by Liames, John S. January: 11

Earth centered earth fixed (ECEF)

Flat-Earth Thinking Removed. Harold Schuch. August: 677–679

Earth observation sensors


Earth Resources Observation and Science (EROS) Center

Metrically Preserving The USGS Aerial Film Archive. Donald Moe and Ryan Longhenry. March: 225–228

Economic modeling


Eco-Agriculture


Ecosystems


Education


Electromagnetic spectrum


Elevation data


Forward: Special Issue—Are We Moving Past the Pixel? The Third Dimension in National Landscape Mapping. Jason M. Stoker. February: 133–134


Elevation errors


European Forest Fire Information System (EFFIS)


ETM+ (Enhanced Thematic Mapper Plus) Imagery


Error correction


Error estimation

Mapping Matters. Qassim A. Abdullah. April: 319–320

Error matrix


Pedestrian Network Extraction from Fused Aerial Imagery (Orthoimages) and Laser Imagery (Lidar). Piyawan Kasemsuppakorn and Hassan A. Karimi. April: 369–379

Error analysis


Emergency management


Energy conservation


Environmental assessment and management


Environmental change


Environmental remote sensing


Environmental tracking

Environmental Tracking for Public Health Surveillance by Morain, Stanley A. and Budge, Amelia M. Reviewed by Lodhi, Mahtab A. October: 891

Epsilon band method


Error propagation


Error sources


ETM+ (Enhanced Thematic Mapper Plus) Imagery


ETM+ (Enhanced Thematic Mapper Plus) Imagery


European Forest Fire Information System (EFFIS)


ETM+ (Enhanced Thematic Mapper Plus) Imagery


European Fire Information System (EFFIS)


Exterior orientation parameters (EOP)


Fast-Earth


Fast-Responder

Subject Index

Feature detection algorithm

Feature extraction


Improved Nonsubsampled Contourlet Transform for Multi-sensor Image Registration. Ruirui Wang, Jianwen Ma, Huaguo Huang, and Wei Shi. January: 51–66

Pedestrian Network Extraction from Fused Aerial Imagery (Orthoimages) and Laser Imagery (Lidar). Piyawan Kasemsuppakorn and Hassan A. Karimi. April: 369–379

Feature extraction—Wavelet-based

Feature matching

Improved Nonsubsampled Contourlet Transform for Multi-sensor Image Registration. Ruirui Wang, Jianwen Ma, Huaguo Huang, and Wei Shi. January: 51–66

Feature selection


Filtering errors

Finnish Archipelago Sea

Fire Information Systems (FIS)

Fire Mapping Project

Flight curvature
Flat-Earth Thinking Removed. Harold Schuch. August: 677–679

Flight planning and control—Automatic

Flood disaster management

Flood observation-supporting satellite sensors (FO-SSs)

Focus-of-expansion approach

Forest fires. See Wildland fire

Forest inventory


Forestry


Forests

Forward greedy searching algorithm (FGSA)

Fraction images
Classification of Coffee-Forest Landscapes Using Landsat TM Imagery and Spectral Mixture Analysis. Mikaela Schmitt-
Subject Index

Harsh, Sean P. Sweeney, and Tom P. Evans. May: 457–468

Fuel metrics
Towards Integration of GLAS into a National Fuel Mapping Program. Birgit Peterson, Kurtis Nelson, and Bruce Wylie. February: 175–183

Fuzzy Kolmogorov-Smirnov (FKS) classifier
Developing an Object-based Hyperspatial Image Classifier with a Case Study Using WorldView-2 Data. Harini Sridharan and Fang Qiu. November: 1027–1036

Fuzzy metrics

Gambia

Gaussian mixture models (GMM)
Hierarchical Method of Urban Building Extraction Inspired by Human Perception. Chao Tao, Yihua Tan, and Zheng-rong Zou. December: 1109–1119

Genetic algorithms (GA)

Geographic Information Science and Technology (GIS&T)

Geographic information system (GIS)
An Introduction to Using GIS in Marine Biology by MacLeod, Colin D. Reviewed by Wedding, Lisa M. December: 1089–1090

Geographic object-based image analysis (GEOBIA)

Geolocation algorithm--Forward

Geolocation calibration

Geological hazards

Geometry-based algorithm

Geoprocessing modeling issues

Geo-referenced image products

Georeferencing
Change Detection and Deformation Analysis in Point Clouds: Application to Rock Face Monitoring. Marco Scaioni, Riccardo Roncella, and Mario Ivan Alba. May: 441–455

Geospatial data
Forward: Special Issue on Mobile Mapping for Disaster Relief. David Alvarez, Piero Boccardo, Maria Antonia Brovelli, Fabio Giulio Tonolo, and Marguerite Madden. October: 901–903
Geospatial Sensor Web

Geospatial Web (Geoweb)
Understanding the Spatio-Temporal Pattern of Tweets. Yue Li and Jie Shan. September: 769–773

Geospatial Web Services

Glaciar San Rafael

GLAS
Towards Integration of GLAS into a National Fuel Mapping Program. Birgit Peterson, Kurtis Nelson, and Bruce Wylie. February: 175–183

Global Agricultural Drought Monitoring and Forecasting System (GADMFS)

Global ordinary least square (GOLS) regression

Global positioning systems (GPS)

Gulf of Finland

Gnomonic projections

Great Lakes Basin (GLB)
Classification and Accuracy Assessment for Coarse Resolution Mapping within the Great Lakes Basin, USA. John S. Iames and Ross S. Lunetta. November: 1015–1026

Ground-based cover measurements

Ground-classified returns (GCRs)

Ground deformation monitoring

Ground inventory data

Ground water extraction

Haar wavelet transform (DWT)

Hausdorff distance-based change detection

Hedonic modeling

Hexagonal retro-reflective lidar ground target (HRRT)

Hierarchical building extraction framework
Hierarchical Method of Urban Building Extraction Inspired by Human Perception. Chao Tao, Yilua Tan, and Zheng-rong Zou. December: 1109-1119

Hierarchical watered segmentation (HWS)
Subject Index

High-precision GPS surveys

High-resolution geological mapping satellite
Basic Products of the ZiYuan-3 Satellite and Accuracy Evaluation. Hongbo Pan, Guo Zhang, Xinning Tang, Deren Li, Xiaoyong Zhu, Ping Zhou, and Yonghua Jiang. December: 1131-1145

High-resolution imagery

High-resolution satellite remote sensing
Hierarchical Method of Urban Building Extraction Inspired by Human Perception. Chao Tao, Yihua Tan, and Zheng-rong Zou. December: 1109-1119

High-resolution scanners

High-spatial resolution color-infrared imagery

High spatial resolution data
Developing an Object-based Hyperspatial Image Classifier with a Case Study Using WorldView-2 Data. Harini Sridharan and Fang Qiu. November: 1027–1036

Histogrames matching classifiers

Historical photographs
Rational Function Model in Processing Historical Aerial Photographs. Ruijin Ma. April: 337–345

Hole-filling algorithm

House value estimation

Human environment interface

Human perception
Hierarchical Method of Urban Building Extraction Inspired by Human Perception. Chao Tao, Yihua Tan, and Zheng-rong Zou. December: 1109-1119

Hydrogeological observations

Hyperlocal media

Hyperspatial data

Hyperspectral imagery
Combining Hyperspectral and Radar Imagery for Mangrove Leaf Area Index Modeling. Frankie K. K. Wong and Tung Fung. May: 479–490

Hyperspectral remote sensing

Ikonos (IK) images

Image access

Image acquisition
Subject Index


Combining Hyperspectral and Radar Imagery for Mangrove Leaf Area Index Modeling. Frankie K. K. Wong and Tung Fung. May: 479–490


Image analysis

Change Detection and Deformation Analysis in Point Clouds: Application to Rock Face Monitoring. Marco Scaioni, Riccardo Roncella, and Mario Ivan Alba. May: 441–455


Image analysis—Object-based


Developing an Object-based Hyperspatial Image Classifier with a Case Study Using WorldView-2 Data. Harini Sridharan and Fang Qiu. November: 1027–1036

Image classification—Multi-date

Applicability of Multi-date Land Cover Mapping using Landsat-5 TM Imagery in the Northeastern US. Meghan Graham MacLean and Russell G. Congalton. April: 359–368

Image classification—Multi-spectral


Image classification—Object-based

Developing an Object-based Hyperspatial Image Classifier with a Case Study Using WorldView-2 Data. Harini Sridharan and Fang Qiu. November: 1027–1036


Image dissemination


Image fusion


Image management


Image matching


Image motion model


Image orientation parameters


Image processing

Applicability of Multi-date Land Cover Mapping using Landsat-5 TM Imagery in the Northeastern US. Meghan Graham MacLean and Russell G. Congalton. April: 359–368

Developing an Object-based Hyperspatial Image Classifier with a Case Study Using WorldView-2 Data. Harini Sridharan and Fang Qiu. November: 1027–1036


Pedestrian Network Extraction from Fused Aerial Imagery (Orthoimages) and Laser Imagery (Lidar). Piyawon Kasemsuppakorn and Hassan A. Karimi. April: 369–379

Image quality


Image reconstruction


Image registration


Registration of Aerial Imagery and Lidar Data in Desert Areas Using the Centroids of Bushes as Control Information. Na Li, Xianfeng Huang, Fan Zhang, and Le Wang. August: 743–752


Image registration—Multi-sensor

Improved Nonsubsampled Contourlet Transform for Multi-sensor Image Registration. Ruirui Wang, Jianwen Ma, Huaguof Huang, and Wei Shi. January: 51–66
Image segmentation
Developing an Object-based Hyperspatial Image Classifier with a Case Study Using WorldView-2 Data. Harini Sridharan and Fang Qiu. November: 1027–1036

Image segmentation–Hierarchical

Image services–Web-based

Image shadow

Image space tracking

Indonesia

Information dissemination
Generation and Dissemination of a National Virtual 3D City and Landscape Model for the Netherlands. Sander Oude Elberink, Jantien Stoter, Hugo Ledoux, and Tom Commandeur. February: 147–158

Intellectual property

Intensity - saturation (I-S)

Interior orientation parameters (IOP)

Intermap bare-earth IFSAR DTM data


International Space Station (ISS)

International Space Station Agriculture Camera (ISSAC)

Interoperability–Geospatial

Interpolation

Intervallometer mode high-resolution digital camera

Iran

Iterative closest point (ICP) algorithm

Iterative closest projected point (ICPP) registration algorithm

Iterative spectral smooth temperature and emissivity separation (ISSTES) methods

Joint Agency Commercial Imagery Evaluation (JACIE)

Karst areas

Knife-edge detection
<table>
<thead>
<tr>
<th>Title</th>
<th>Authors</th>
<th>Pages</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Multi-Scale Approach to Mapping Canopy Height. Gordon M. Green, Sean C. Ahearn, and Wenge Ni-Meister. February: 183–194</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land cover mapping</td>
<td>Applicability of Multi-date Land Cover Mapping using Landsat-5 TM Imagery in the Northeastern US. Meghan Graham MacLean and Russell G. Congalton. April: 359–368</td>
<td></td>
</tr>
<tr>
<td>Landsat Enhanced Thematic Mapper (ETM+)–Imagery</td>
<td>Classification and Accuracy Assessment for Coarse Resolution Mapping within the Great Lakes Basin, USA. John S. Liames and Ross S. Lunetta. November: 1015–1026</td>
<td></td>
</tr>
<tr>
<td>Landsat imagery</td>
<td>An Experimental Comparison of Semi-supervised Learning Algorithms for Multispectral Image Classification. Enmei Tu, Jie Yang, Jiangxiong Fang, Zhongheng Jia, and Nikola Kasabov. April: 347–357</td>
<td></td>
</tr>
<tr>
<td>Applicability of Multi-date Land Cover Mapping using Landsat-5 TM Imagery in the Northeastern US. Meghan Graham MacLean and Russell G. Congalton. April: 359–368</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Lands–Protected

Land subsidence

Land-use and land-cover (LULC)

Laser path modeling

LAS specification
LASzip: Lossless Compression of LiDar Data. Martin Isenburg. February: 208–218

LASzip compressor
LASzip: Lossless Compression of LiDar Data. Martin Isenburg. February: 208–218

Leaf area index (LAI)
Combining Hyperspectral and Radar Imagery for Mangrove Leaf Area Index Modeling. Frankie K. K. Wong and Tun Fung. May: 479–490

Learning algorithms–Semi-supervised

Least-cost path algorithm

Least squares hexagon fitting approach

Least-squares-matching (LSM)

Leica ScanStation

Lens distortion

Lidar–Applications
Forward: Special Issue—Are We Moving Past the Pixel? The Third Dimension in National Landscape Mapping. Jason M. Stoker. February: 133–134
Mapping Matters. Qassim A. Abdullah. May: 404–405

Lidar data
Registration of Aerial Imagery and Lidar Data in Desert Areas Using the Centroids of Bushes as Control Information. Na Li, Xianfeng Huang, Fan Zhang, and Le Wang. August: 743–752
Towards Integration of GLAS into a National Fuel Mapping Program. Birgit Peterson, Kurtis Nelson, and Bruce Wylie. February: 175–183

Lidar data–Heterogeneous
Subject Index

Lidar data—High resolution
Generation and Dissemination of a National Virtual 3D City and Landscape Model for the Netherlands. Sander Oude Elberink, Jantien Stoter, Hugo Ledoux, and Tom Commandeur. February: 147–158

Lidar—Imagery
Pedestrian Network Extraction from Fused Aerial Imagery (Orthoimages) and Laser Imagery (Lidar). Piyawat Kasemsuppakorn and Hassan A. Karimi. April: 369–379

Lidar strip misalignment parameters

Light source

Linear complexity algorithm

Linear feature models

Linear spectral mixture analysis (LSMA)

Line-based matching

Local point density indices

Logistic regression methods

Machine-learning based optimization methods

Mangrove
Combining Hyperspectral and Radar Imagery for Mangrove Leaf Area Index Modeling. Frankie K. K. Wong and Tung Fung. May: 479–490

Map—Online participatory

Mapping accuracy

Mapping history

Maps
Applicability of Multi-date Land Cover Mapping using Landsat-5 TM Imagery in the Northeastern US. Meghan Graham MacLean and Russell G. Congalton. April: 359–368

Maps—Drought

Maps—Online
Maps–Thematic

Maps–Utility corridor

Map–Thematic

Marine biology
An Introduction to Using GIS in Marine Biology by MacLeod, Colin D. Reviewed by Wedding, Lisa M. December: 1089–1090

Markov chain model (MCM)

Massachusetts

Mathematical modeling

Maximum a posteriori (MAP) estimation
Hierarchical Method of Urban Building Extraction Inspired by Human Perception. Chao Tao, Yihua Tan, and Zheng-rong Zou. December: 1109-1119

Maximum likelihood (ML) algorithm


Measurement accuracy


Mensuration model

MFiIP

Mine

Minimization algorithm

Misclassification errors

Mobile application


Mobile mapping
Forward: Special Issue on Mobile Mapping for Disaster Relief. David Alvarez, Piero Boccardo, Maria Antonia Brovelli, Fabio Giulio Tonolo, and Marguerite Madden. October: 901–903

Moderate Resolution Imaging Spectroradiometer (MODIS)–Imagery
Classification and Accuracy Assessment for Coarse Resolution Mapping within the Great Lakes Basin, USA. John S. Liames and Ross S. Lunetta. November: 1015–1026

Modified chlorophyll absorption ratio index (MCARI)
Combining Hyperspectral and Radar Imagery for Mangrove Leaf Area Index Modeling. Frankie K. K. Wong and Tung Fung. May: 479–490

Moldova

Montenegro

Mosaic datasets

Multiple discriminant analysis

Multi-resolution imagery
Subject Index

Multi-resolution segmentation

Multispectral imagery

Naive Bayes (NB)

National Aeronautics and Space Administration (NASA)

National Digital Elevation Program (NDEP)

National Enhanced Elevation Assessment (NEEA)

National Land Cover Database (NLCD)
A Multi-Scale Approach to Mapping Canopy Height. Gordon M. Green, Sean C. Ahearn, and Wenge Ni-Meister. February: 183–194

National Oceanic and Atmospheric Administration (NOAA)

Natural disaster

Nepal

Netherlands
Generation and Dissemination of a National Virtual 3D City and Landscape Model for the Netherlands. Sander Oude Elberink, Jantien Stoter, Hugo Ledoux, and Tom Commandeur. February: 147–158

Neutral landscapes

Nighttime satellite imagery

Lights of Manking: The Earth at Night as Seen from Space by Keeney, L. Douglas. Reviewed by Liames, John S. January: 11

Non-parametric discriminative classifier

Nonsubsampled contourlet transform (NSCT)
Improved Nonsubsampled Contourlet Transform for Multi-sensor Image Registration. Ruirui Wang, Jianwen Ma, Huaguo Huang, and Wei Shi. January: 51–66

Normalized cross correlation coefficients (NCCC)
Improved Nonsubsampled Contourlet Transform for Multi-sensor Image Registration. Ruirui Wang, Jianwen Ma, Huaguo Huang, and Wei Shi. January: 51–66

Normalized difference vegetation index (NDVI)
Classification and Accuracy Assessment for Coarse Resolution Mapping within the Great Lakes Basin, USA. John S. liames and Ross S. Lunetta. November: 1015–1026


Normalized saturation value difference index (NSDVI)

Obituaries
In Memoriam: Dieter Zeuner. June: 511
In Memoriam: Frederick J. Doyle. June: 511
In Memoriam: William “Rad” Radlinski. April: 330

Object-based change detection (OBCD)

Object-based image analysis (OBIA)
Applicability of Multi-date Land Cover Mapping using Landsat-5 TM Imagery in the Northeastern US. Meghan Graham MacLean and Russell G. Congalton. April: 359–368


Object-based image classification (OBC)
Parcel-Level Identification of Crop Types Using Different Classification Algo-

Object filtering
Pedestrian Network Extraction from Fused Aerial Imagery (Orthoimages) and Laser Imagery (Lidar). Piyawan Kasemsuppakorn and Hassan A. Karimi. April: 369–379

Object-to-object matching
Developing an Object-based Hyperspatial Image Classifier with a Case Study Using WorldView-2 Data. Harini Sridharan and Fang Qiu. November: 1027–1036

OILRISK Map

Oil spill accidents

Okanagan Mountain Park Fire

Operational Land Imager (OLI)

Optical pattern projection

Optimization models
Optimized regional regression (ORR) approach

Orientation algorithm

Orthoimagery
Pedestrian Network Extraction from Fused Aerial Imagery (Orthoimages) and Laser Imagery (Lidar). Piyawan Kasemsuppakorn and Hassan A. Karimi. April: 369–379

Orthorectification
Rational Function Model in Processing Historical Aerial Photographs. Ruijin Ma. April: 337–345

Pan sharpening

Parameter estimation


Combining Hyperspectral and Radar Imagery for Mangrove Leaf Area Index Modeling. Frankie K. K. Wong and Tung Fung. May: 479–490


Improved Nonsubsampled Contourlet Transform for Multi-sensor Image Registration. Ruirui Wang, Jianwen Ma, Huaguo Huang, and Wei Shi. January: 51–66


Registration of Aerial Imagery and Lidar Data in Desert Areas Using the Centroids of Bushes as Control Information. Na Li, Xianfeng Huang, Fan Zhang, and Le Wang. August: 743–752

Parcel-level identification

Pedestrian network
Pedestrian Network Extraction from Fused Aerial Imagery (Orthoimages) and Laser Imagery (Lidar). Piyawan Kasemsuppakorn and Hassan A. Karimi. April: 369–379

Philmont Scout Ranch

Phoenix V system
Metrically Preserving The USGS Aerial Film Archive. Donald Moe and Ryan Longhenry. March: 225–228

Photogrammetric Engineering and Remote Sensing (PE&RS)
April 2014 Special Issue Call for Papers on Remote Sensing of Soils for Environmental Assessment and Management. April: 325, February: 118, May: 478


Piecewise transformation
Subject Index

Pixel-based classification
Pedestrian Network Extraction from Fused Aerial Imagery (Orthoimages) and Laser Imagery (Lidar). Piyawan Kasemsuppakorn and Hassan A. Karimi. April: 369–379

PJ expansion woodlands

Planar checkerboard

Planimetric errors

Plant area index (PAI)

Point clouds
Change Detection and Deformation Analysis in Point Clouds: Application to Rock Face Monitoring. Marco Scaioni, Riccardo Roncella, and Mario Ivan Alba. May: 441–455


Registration of Aerial Imagery and Lidar Data in Desert Areas Using the Centroids of Bushes as Control Information. Na Li, Xianfeng Huang, Fan Zhang, and Le Wang. August: 743–752

Point matching algorithm
Registration of Aerial Imagery and Lidar Data in Desert Areas Using the Centroids of Bushes as Control Information. Na Li, Xianfeng Huang, Fan Zhang, and Le Wang. August: 743–752

Point segmentation algorithm

Positional accuracy


Post-wildfire regeneration

Power line corridor scene

Predictive modeling

Principal component analysis (PCA)

Proof-of-concept application
A Multi-Scale Approach to Mapping Canopy Height. Gordon M. Green, Sean C. Ahearn, and Wenge Ni-Meister. February: 183–194

Public health surveillance
Environmental Tracking for Public Health Surveillance by Morain, Stanley A. and Budge, Amelia M. Reviewed by Lodhi, Mahtab A. October: 891

Quality control

QuickBird–Applications
QuickBird–Imagery

Radar imagery
Combining Hyperspectral and Radar Imagery for Mangrove Leaf Area Index Modeling. Frankie K. K. Wong and Tung Fung. May: 479–490

Radiance calibration

Random error distribution
Mapping Matters. Qassim A. Abdullah. April: 319–320

Random forest algorithm


Product calibration
Metrically Preserving The USGS Aerial Film Archive. Donald Moe and Ryan Longhenry. March: 225–228


Residential buildings

Road-filtering algorithm–Multidirectional morphological
Hierarchical Method of Urban Building Extraction Inspired by Human Perception. Chao Tao, Yihua Tan, and Zheng-rong Zou. December: 1109-1119

Road network simulation model

Robust affine-invariant lines matching method

Rock face monitoring
Change Detection and Deformation Analysis in Point Clouds: Application to Rock Face Monitoring. Marco Scaioni, Riccardo Roncella, and Mario Ivan Alba. May: 441–455

Rwanda

Satellite-based laser altimetry
A Multi-Scale Approach to Mapping Canopy Height. Gordon M. Green, Sean C. Ahearn, and Wenge Ni-Meister. February: 183–194

Satellite data product calibration

Satellite imagery
Forward: Special Issue on Mobile Mapping for Disaster Relief. David Alvarez, Piero Boccardo, Maria Antonia Brovelli, Fabio Giulio Tonolo, and Marguerite Madden. October: 901–903


Satellite sensor information (SSI) model

Self-calibration


Semi-supervised learning (SSL)
An Experimental Comparison of Semi-supervised Learning Algorithms for Multispectral Image Classification. Emei Tu, Jie Yang, Jiangxiong Fang, Zhenghong Jia, and Nikola Kasabov. April: 347–357

Sensitivity analysis
Assessing Post-Fire Regeneration in a Mediterranean Mixed Forest Using Lidar Data and Artificial Neural Networks.
### Subject Index

<table>
<thead>
<tr>
<th>Topic</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Spatial decision support systems (SDSS)</strong></td>
<td>Design and Function of the European Forest Fire Information System. Daniel McInerney, Jesus San-Miguel-Ayanz, Paolo Corti, Ceri Whitmore, Cristiano Giovando, and Andrea Camia. October: 965–973</td>
</tr>
<tr>
<td><strong>Spatial resolution</strong></td>
<td>Classification and Accuracy Assessment for Coarse Resolution Mapping within the Great Lakes Basin, USA. John S. Iliances and Ross S. Lunetta. November: 1015–1026</td>
</tr>
<tr>
<td><strong>Spatio-temporal dynamics</strong></td>
<td>Understanding the Spatio-Temporal Pattern of Tweets. Yue Li and Jie Shan. September: 769–773</td>
</tr>
<tr>
<td><strong>SRKE (Super-Resolution based on Knife-Edge) method</strong></td>
<td>A Coarse Elevation Map-based Registration Method for Super-resolution of Three line Scanner Images. Rongjun Qin, Jianya Gong, Hongli Li, and Xianfeng Huang. August: 717–730</td>
</tr>
<tr>
<td><strong>Standard deviation</strong></td>
<td>Mapping Matters. Qassim A. Abdullah. April: 319–320</td>
</tr>
<tr>
<td><strong>Statistical geoinformatics</strong></td>
<td>Statistical Geoinformatics for Human Environment Interface by Myers, Wayne L. and Patil, Ganapati P. Reviewed by Goldin, Sally E. December: 1088, 1090</td>
</tr>
<tr>
<td><strong>Stem mapping</strong></td>
<td>Comparison of Forest Attributes Derived from Two Terrestrial Lidar Systems. Mark J. Ducey, Rasmus Astrup, Stefan Seifert, Hans Pretzsch, Bruce C. Larson, and K. David Coates. March: 245–257</td>
</tr>
</tbody>
</table>
Supervised learning algorithms

Support vector machines (SVM)


Surface fuel models (FM)

Surface reconstruction

Surface temperature separation

Synthetic aperture radar (SAR) imaging
Improved Nonsubsampled Contourlet Transform for Multi-sensor Image Registration. Ruirui Wang, Jianwen Ma, Huaguo Huang, and Wei Shi. January: 51–66


Synthetic aperture radar (SAR) polarimetry
Synthetic Aperture Radar Polarimetry by Van Zyl, Jakob and Kim, Yunjin. Reviewed by Miliareis, George Ch. August: 685

Systematic errors

Systems analysis

Targets-Lidar

Technical certification. See Certification

Temporal resolution

Terrestrial laser scanning (TLS)
Change Detection and Deformation Analysis in Point Clouds: Application to Rock Face Monitoring. Marco Scaioni, Riccardo Roncella, and Mario Ivan Alba. May: 441–455


Three-dimensional data
Forward: Special Issue—Are We Moving Past the Pixel? The Third Dimension in National Landscape Mapping. Jason M. Stoker. February: 133–134


Three-dimensional reconstruction


Terrestrial photogrammetry

Thematic detail

Thermal Airborne Hyperspectral Imager (TASI)

Thermal imaging

Thermal infrared sensor (TIRS)
Three-dimensional segmentation algorithm
Change Detection and Deformation Analysis in Point Clouds: Application to Rock Face Monitoring. Marco Scaioni, Riccardo Roncella, and Mario Ivan Alba. May: 441–455

Three-line scanner (TLS) imagery

Time-series data
Classification and Accuracy Assessment for Coarse Resolution Mapping within the Great Lakes Basin, USA. John S. liames and Ross S. Lunetta. November: 1015–1026

Markov Land Cover Change Modeling

Time-series satellite images

Togolese Republic

Topographic dataset
Generation and Dissemination of a National Virtual 3D City and Landscape Model for the Netherlands. Sander Oude Elberink, Jantien Stoter, Hugo Ledoux, and Tom Commandeur. February: 147–158

Total variation (TV)-based segmentation
Hierarchical Method of Urban Building Extraction Inspired by Human Perception. Chao Tao, Yihua Tan, and Zheng-rong Zou. December: 1109-1119

Traffic islands

Tree


A Multi-Scale Approach to Mapping Canopy Height. Gordon M. Green, Sean C. Ahearn, and Wenge Ni-Meister. February: 183–194

Tree-based hierarchical template matching

Tree diameter distribution

Tree reconstruction algorithms

Triangular vegetation index (TVI)
Combining Hyperspectral and Radar Imagery for Mangrove Leaf Area Index Modeling. Frankie K. K. Wong and Tung Fung. May: 479–490

Turkey

Tweets—Geo-tagged

Understanding the Spatio-Temporal Pattern of Tweets. Yue Li and Jie Shan. September: 769–773

UltraCam


Uncertainty modeling

United States
Applicability of Multi-date Land Cover Mapping using Landsat-5 TM Imagery in the Northeastern US. Meghan Graham MacLean and Russell G. Congalton. April: 359–368


Classification and Accuracy Assessment for Coarse Resolution Mapping within the Great Lakes Basin, USA. John S. liames and Ross S. Lunetta. November: 1015–1026

Forward: Special Issue—Are We Moving Past the Pixel? The Third Dimension in National Landscape Mapping. Jason M. Stoker. February: 133–134


U
United States Department of Agriculture (USDA)

United States Geological Survey (USGS)

Unmanned aerial vehicles (UAVs)

Urban areas


Urban building extraction
Hierarchical Method of Urban Building Extraction Inspired by Human Perception. Chao Tao, Yihua Tan, and Zheng-rong Zou. December: 1109-1119

Urban land cover classification

Urban planning
Generation and Dissemination of a National Virtual 3D City and Landscape Model for the Netherlands. Sander Oude Elberink, Jantien Stoter, Hugo Ledoux, and Tom Commandeur. February: 147–158


US Drought Monitor (USDM)

U.S. Geological Survey (USGS)
Metrically Preserving The USGS Aerial Film Archive. Donald Moe and Ryan Longhenry. March: 225–228

Utility corridor objects

Vector-to-imagery conflation approach

Vegetation


Towards Integration of GLAS into a National Fuel Mapping Program. Birgit Peterson, Kurtis Nelson, and Bruce Wylie. February: 175–183


Vegetation canopy structure mapping
Towards Integration of GLAS into a National Fuel Mapping Program. Birgit Peterson, Kurtis Nelson, and Bruce Wylie. February: 175–183

Vegetation filtering
Change Detection and Deformation Analysis in Point Clouds: Application to Rock Face Monitoring. Marco Scaioni, Riccardo Roncella, and Mario Ivan Alba. May: 441–455

Vegetation height mapping
A Multi-Scale Approach to Mapping Canopy Height. Gordon M. Green, Sean C. Ahearn, and Wenge Ni-Meister. February: 183–194

Vegetation indices (VI)
Combining Hyperspectral and Radar Imagery for Mangrove Leaf Area Index Modeling. Frankie K. K. Wong and Tung Fung. May: 479–490

Vernal pools

Vertical error structure
**Subject Index**

**Very high resolution (VHR) satellite imagery**

**Virtual 3D city**
Generation and Dissemination of a National Virtual 3D City and Landscape Model for the Netherlands. Sander Oude Elberink, Jantien Stoter, Hugo Ledoux, and Tom Commandeur. February: 147–158

**Volcanic hazards**

**Volunteered geographic information (VGI)**

**Wavelet-based feature extraction**

**Wavelet transform**

**Web-based mapping platforms**

**Woodlands**

**WorldView-2 data**

**Developing an Object-based Hyperspatial Image Classifier with a Case Study Using WorldView-2 Data. Harini Sridharan and Fang Qiu. November: 1027–1036**

**ZiYuan-3 satellite**
Basic Products of the ZiYuan-3 Satellite and Accuracy Evaluation. Hongbo Pan, Guo Zhang, Xinning Tang, Deren Li, Xiaoyong Zhu, Ping Zhou, and Yonghua Jiang. December: 1131-1145

**Zoom lens calibration**
## Author Index

### A

**Aardt, Jan van**  
3D Tree Reconstruction from Simulated Small Footprint Waveform Lidar. December: 1147-1157

**Abdullah, Qassim A.**  

**Abidin, Hasanuddin Z.**  
Land Subsidence Characteristics in Bandung City, Indonesia as Revealed by Spaceborne Geodetic Techniques and Hydrogeological Observations. July: 639-652

**Ahearn, Sean C.**  
A Multi-Scale Approach to Mapping Canopy Height. February: 183-194

**Alba, Mario Ivan**  
Change Detection and Deformation Analysis in Point Clouds: Application to Rock Face Monitoring. May: 441-455

**Al-Durgham, M.**  
A Framework for the Registration and Segmentation of Heterogeneous Lidar Data. February: 135-145

**Alganci, Ugur**  
Parcel-Level Identification of Crop Types Using Different Classification Algorithms and Multi-Resolution Imagery in Southeastern Turkey. November: 1053-1065

**Altartouri, Anas**  
Geospatial Web Services for Responding to Ecological Risks Posed by Oil Spills. October: 905-914

**Alvarez, David**  
Forward: Special Issue on Mobile Mapping for Disaster Relief. October: 901-903

**Amelung, Falk**  
Characterization of Geological Hazards Using a Globally Observing Spaceborne SAR. November: 982-986

**Anderson, Sharolyn J.**  

**Arias-Perez, Benjamin**  
An Automatic Approach to UAV Flight Planning and Control for Photogrammetric Applications: A Test Case in the Asturias Region (Spain). January: 87-98

**Arima, Eugenio Y.**  
Assessing the Performance of Linear Feature Models: An Approach to Computational Inference. September: 847-855

**Astrup, Rasmus**  
Comparison of Forest Attributes Derived from Two Terrestrial Lidar Systems. March: 245-257

### B

**Babbitt, Kimberly J.**  

**Banskota, Asim**  

**Barazzetti, Luigi**  
Stitching and Processing Gnomonic Projections for Close-Range Photogrammetry. June: 573-582

**Bastian, Zachary**  
Tweeting Up a Storm: The Promise and Perils of Crisis Mapping. October: 865-879

**Baugh, Kim**  

**Becker, Peter**  
Trends in Image Management and Dissemination. October: 880-885

**Benkelman, Cody**  
Worldwide Elevation Data via Web-Based Image Services. February: 111-114

**Bigdeli, Behnaz**  
Band Grouping versus Band Clustering in SVM Ensemble Classification of Hyperspectral Imagery. June: 523-533

**Boccardo, Piero**  
Forward: Special Issue on Mobile Mapping for Disaster Relief. October: 901-903

**Boyd, Gerald**  
Zeroing in on Energy Savings with Thermal Imaging. April: 313-316

**Braun, Aaron**  
Assessing Lidar Accuracy with Hexagonal Retro-Reflective Targets. July: 663-670

**Brennan, Samantha**  
A Hot Topic: The Role of the Geoweb after Wildfire. October: 955-963

**Brovelli, Maria Antonia**  
Forward: Special Issue on Mobile Mapping for Disaster Relief. October: 901-903

**Buenemann, Michaela**  
Book review: Teaching Geographic Information Science and Technology in Higher Education. June: 509-510

**Bunting, Stephen C.**  
Assessing the Relationship between Ground Measurements and Object-Based Image Analysis of Land Cover Classes in Pinyon and Juniper Woodlands. September: 799-808

**Burns, Ryan**  
Tweeting Up a Storm: The Promise and Perils of Crisis Mapping. October: 865-879

**Camia, Andrea**  
Design and Function of the European Forest Fire Information System. October: 965-973

**Canavosio-Zuzelski, Roberto**  
Assessing Lidar Accuracy with Hexagonal Retro-Reflective Targets. July: 663-670

**Casassa, G.**  
Photogrammetric Techniques for the Determination of Spatio-temporal Velocity Fields at Glacier San Rafael, Chile. March: 299-306

**Cawse-Nicholson, Kerry**  
3D Tree Reconstruction from Simulated Small Footprint Waveform Lidar. December: 1147-1157

**Chasmer, Laura**  
Moving Toward Consistent ALS Monitoring of Forest Attributes across Canada:
Author Index

A Consortium Approach. February: 159-173

Chatterjee, R.S.
Land Subsidence Characteristics in Bandung City, Indonesia as Revealed by Spaceborne Geodetic Techniques and Hydrogeological Observations. July: 639-652

Chaussard, Estelle
Characterization of Geological Hazards Using a Globally Observing Spaceborne SAR. November: 982-986

Chen, Dongmei
Selecting Key Features for Remote Sensing Classification by Using Decision-Theoretic Rough Set Model. September: 787-797

Chen, Min

Chen, Nengcheng
Geospatial Web-based Sensor Information Model for Integrating Satellite Observations: An Example in The Field of Flood Disaster Management. October: 915-927

Coates, K. David
Comparison of Forest Attributes Derived from Two Terrestrial Lidar Systems. March: 245-257

Collins, Brandon

Coulston, John W.
The Influence of Multi-season Imagery on Models of Canopy Cover: A Case Study. May: 469-477

Covenev, Seamus
Land Cover Dependent Error in Intermap IFSAR DTM: Lidar Comparison and Fusion Potential. March: 277-286

D

Daniels, Richard C.

Davies, Angela

Davis, Curt H.

Debouk, Haifa

Di, Liping
Web-service-based Monitoring and Analysis of Global Agricultural Drought. October: 929-943

Dong, Yue

Dou, Changyong
Geolocation Algorithm for Earth Observation Sensors Onboard the International Space Station. July: 625-637

Dubé, M. G.

Ducey, Mark J.
Comparison of Forest Attributes Derived from Two Terrestrial Lidar Systems. March: 245-257

Duro, D.C.

E

Ehrnsten, Eva
Geospatial Web Services for Responding to Ecological Risks Posed by Oil Spills. October: 905-914

Elberink, Sander Oude
Generation and Dissemination of a National Virtual 3D City and Landscape Model for the Netherlands. February: 147-158

Elmore, Ivey C.
The Influence of Multi-season Imagery on Models of Canopy Cover: A Case Study. May: 469-477

Elvidge, Christopher D.

Evans, Tom P.
Classification of Coffee-Forest Landscapes Using Landsat TM Imagery and Spectral Mixture Analysis. May: 457-468
Author Index

F

Falkowski, Michael J.
A Methodology to Characterize Vertical Accuracies in Lidar-derived Products at Landscape Scales. August: 709-716

Fang, Jiangxiong
An Experimental Comparison of Semi-supervised Learning Algorithms for Multispectral Image Classification. April: 347-357

Felipe-Garcia, Beatriz
An Automatic Approach to UAV Flight Planning and Control for Photogrammetric Applications: A Test Case in the Asturias Region (Spain). January: 87-98

Fournier, Richard A.
Moving Toward Consistent ALS Monitoring of Forest Attributes across Canada: A Consortium Approach. February: 159-173

Franklin, S.E.

Fraser, Clive S.
Automatic Camera Calibration in Close Range Photogrammetry. April: 381-388

Fung, Tung
Combining Hyperspectral and Radar Imagery for Mangrove Leaf Area Index Modeling. May: 479-490

G

Genzhong, Zhang
Temperature and Emissivity Separation from Thermal Airborne Hyperspectral Imager (TASI) Data. December: 1099-1107

Giovando, Cristiano
Design and Function of the European Forest Fire Information System. October: 965-973

Glenn, Nancy F.
Influence of a Dense, Low-height Shrub Species on the Accuracy of a Lidar derived DEM. May: 421-431

Goldberg, Mitch
JACIE: A Model Partnership. August: 681-682

Goldin, Sally E.

Gong, Jiana

Gonzalez-Aguilera, Diego
An Automatic Approach to UAV Flight Planning and Control for Photogrammetric Applications: A Test Case in the Asturias Region (Spain). January: 87-98

Gould, Samuel B.
Influence of a Dense, Low-height Shrub Species on the Accuracy of a Lidar derived DEM. May: 421-431

Gouzie, Douglas R.
Developing Efficient Procedures for Automated Sinkhole Extraction from Lidar DEMs. June: 545-554

Green, Edwin J.
Illustrating the Temporal Progress of Environmental Change. December: 1159-1170

Green, Gordon M.
A Multi-Scale Approach to Mapping Canopy Height. February: 183-194

Guindon, Bert
A Spatial-Spectral Methodology to Detect Narrow Shadows on Satellite Imagery: A Case Study of Calgary, Canada. March: 269-276

Guo, Huadong
Geolocation Algorithm for Earth Observation Sensors Onboard the International Space Station. July: 625-637

Guo, Qinghua

H

Habib, Ayman

Haithcoat, Timothy L.

Hall, Ronald J.
Moving Toward Consistent ALS Monitoring of Forest Attributes across Canada: A Consortium Approach. February: 159-173

Hang, Yang
Temperature and Emissivity Separation from Thermal Airborne Hyperspectral Imager (TASI) Data. December: 1099-1107

Han, Weiguo
Web-service-based Monitoring and Analysis of Global Agricultural Drought. October: 929-943

Harvey, Joann W.
Illustrating the Temporal Progress of Environmental Change. December: 1159-1170

Helle, Inari
Geospatial Web Services for Responding to Ecological Risks Posed by Oil Spills. October: 905-914

Heo, Gil
Web-service-based Monitoring and Analysis of Global Agricultural Drought. October: 929-943

Hernandez-Lopez, David
An Automatic Approach to UAV Flight Planning and Control for Photogrammetric Applications: A Test Case in the Asturias Region (Spain). January: 87-98

Hinsen, Jason B.

Hoffman, Chad M.
A Methodology to Characterize Vertical Accuracies in Lidar-derived Products at Landscape Scales. August: 709-716

Hogarty, James
Assessing Lidar Accuracy with Hexagonal Retro-Reflective Targets. July: 663-670
Author Index

Hopkinson, Chris
Moving Toward Consistent ALS Monitoring of Forest Attributes across Canada: A Consortium Approach. February: 159-173

Howey, Catherine
A Least-Cost Algorithm Approach to Trail Design Using GIS. June: 498-505

Huang, Huaguo
Improved Nonsubsampled Contourlet Transform for Multi-sensor Image Registration. January: 51-66

Huang, Rongyong
Registration of Optical Images with Lidar Data and Its Accuracy Assessment. August: 731-741

Huang, Xianfeng

Hu, Chuli
Geospatial Web-based Sensor Information Model for Integrating Satellite Observation: An Example in The Field of Flood Disaster Management. October: 915-927

Hu, Han
A Flexible Method for Zoom Lens Calibration and Modeling Using a Planar Checkerboard. June: 555-571

Hulet, April
Assessing the Relationship between Ground Measurements and Object-Based Image Analysis of Land Cover Classes in Piney and Juniper Woodlands. September: 799-808

Hung, Ming-Chih

Hwang, Won Hoi
A Least-Cost Algorithm Approach to Trail Design Using GIS. June: 498-505

Jin, Xiaoying

Jolma, Ari
Geospatial Web Services for Responding to Ecological Risks Posed by Oil Spills. October: 905-914

Kang, Zhizhong
Range Image Techniques for Fast Detection and Quantification of Changes in Repeatedly Scanned Buildings. August: 695-707

Karimi, Hassan A.
Pedestrian Network Extraction from Fused Aerial Imagery (Orthoimages) and Laser Imagery (Lidar). April: 369-379

Kasabov, Nikola
An Experimental Comparison of Semi-supervised Learning Algorithms for Multispectral Image Classification. April: 347-357

Kasemsuppakorn, Piyawon
Pedestrian Network Extraction from Fused Aerial Imagery (Orthoimages) and Laser Imagery (Lidar). April: 369-379

Kayastha, Nilam

Keller, James M.

Kelly, Maggi

Jia, Guimin

Jiang, Yonghua
Basic Products of the ZiYuan-3 Satellite and Accuracy Evaluation. December: 1131-1145

Jia, Zhenghong
An Experimental Comparison of Semi-supervised Learning Algorithms for Multispectral Image Classification. April: 347-357

Jiames, John S.
Classification and Accuracy Assessment for Coarse Resolution Mapping within the Great Lakes Basin, USA. November: 1015-1026

Im, Jungho

Irons, James R.
Eighth Landsat Satellite Becomes Operational. May: 398-401

Isenburg, Martin
LASzip: Lossless Compression of Lidar Data. February: 208-218

Jacobs, Dennis M.
The Influence of Multi-season Imagery on Models of Canopy Cover: A Case Study. May: 469-477

Jakubowski, Marek K.

Jensen, Ryan R.
Assessing the Relationship between Ground Measurements and Object-Based Image Analysis of Land Cover Classes in Piney and Juniper Woodlands. September: 799-808

Jia, Guimin

Jiang, Yonghua
Basic Products of the ZiYuan-3 Satellite and Accuracy Evaluation. December: 1131-1145

Jia, Zhenghong
An Experimental Comparison of Semi-supervised Learning Algorithms for Multispectral Image Classification. April: 347-357

Jin, Xiaoying

Jolma, Ari
Geospatial Web Services for Responding to Ecological Risks Posed by Oil Spills. October: 905-914

Kang, Zhizhong
Range Image Techniques for Fast Detection and Quantification of Changes in Repeatedly Scanned Buildings. August: 695-707

Karimi, Hassan A.
Pedestrian Network Extraction from Fused Aerial Imagery (Orthoimages) and Laser Imagery (Lidar). April: 369-379

Kasabov, Nikola
An Experimental Comparison of Semi-supervised Learning Algorithms for Multispectral Image Classification. April: 347-357

Kasemsuppakorn, Piyawon
Pedestrian Network Extraction from Fused Aerial Imagery (Orthoimages) and Laser Imagery (Lidar). April: 369-379

Kayastha, Nilam

Keller, James M.

Kelly, Maggi

Kim, Tae Koo
Point-based Classification of Power Line Corridor Scene Using Random Forests. September: 821-833

Kim, Hojin
Geolocation Algorithm for Earth Observation Sensors Onboard the International Space Station. July: 625-637
Author Index

King, Chris R.
The Influence of Multi-season Imagery on Models of Canopy Cover: A Case Study. May: 469-477

Knight, Joseph F.
The Effects of Data Selection and Thematic Detail on the Accuracy of High Spatial Resolution Wetland Classifications. July: 613-623

Kokkinidis, Ioannis
A Least-Cost Algorithm Approach to Trail Design Using GIS. June: 498-505

Kulawardhana, Ranjani Wasantha

Kumar, Lalit

Kumar, Sunil
Histogram Curve Matching Approaches for Object-based Image Classification of Land Cover and Land Use. May: 433-440

L

Lari, Zahra

Larson, Bruce C.
Comparison of Forest Attributes Derived from Two Terrestrial Lidar Systems. March: 245-257

Ledoux, Hugo
Generation and Dissemination of a National Virtual 3D City and Landscape Model for the Netherlands. February: 147-158

Lee, Mark
Assessing Lidar Accuracy with Hexagonal Retro-Reflective Targets. July: 663-670

Liames, John S.
Book review: Lights of Manking: The Earth at Night as Seen from Space. January: 11

Li, Deren
Basic Products of the ZiYuan-3 Satellite and Accuracy Evaluation. December: 1131-1145

Lifu, Zhang
Temperature and Emissivity Separation from Thermal Airborne Hyperspectral Imager (TASI) Data. December: 1099-1107

Li, Hongli

Li, Jia
Geospatial Web-based Sensor Information Model for Integrating Satellite Observation: An Example in The Field of Flood Disaster Management. October: 915-927

Li, Na
Registration of Aerial Imagery and Lidar Data in Desert Areas Using the Centroids of Bushes as Control Information. August: 743-752

Lindenbergh, Roderik
Range Image Techniques for Fast Detection and Quantification of Changes in Repeatedly Scanned Buildings. August: 695-707

Link, Timothy E.
A Methodology to Characterize Vertical Accuracies in Lidar-derived Products at Landscape Scales. August: 709-716

Lin, Yi
Selecting Key Features for Remote Sensing Classification by Using Decision-Theoretic Rough Set Model. September: 787-797

Li, Yue
Understanding the Spatio-Temporal Pattern of Tweets. September: 769-773

Lodhi, Mahtab A.
Book review: Environmental Tracking for Public Health Surveillance. October: 891

Longhenry, Ryan
Metrically Preserving The USGS Aerial Film Archive. March: 225-228

Lorentz, Laura
A Least-Cost Algorithm Approach to Trail Design Using GIS. June: 498-505

Loveland, Thomas R.
Eighth Landsat Satellite Becomes Operational. May: 398-401

Lunetta, Ross S.
Classification and Accuracy Assessment for Coarse Resolution Mapping within the Great Lakes Basin, USA. November: 1015-1026

Luo, Jun
Developing Efficient Procedures for Automated Sinkhole Extraction from Lidar DEMs. June: 545-554

Luther, Joan E.
Moving Toward Consistent ALS Monitoring of Forest Attributes across Canada: A Consortium Approach. February: 159-173

Lu, Zhenyu

M

Maas, H.-G.
Photogrammetric Techniques for the Determination of Spatio-temporal Velocity Fields at Glaciar San Rafael, Chile. March: 299-306

MacLean, Meghan Graham
Applicability of Multi-date Land Cover Mapping using Landsat-5 TM Imagery in the Northeastern US. April: 359-368

Madden, Marguerite
Forward: Special Issue on Mobile Mapping for Disaster Relief. October: 901-903

Ma, Jianwen
Improved Nonsubsampled Contourlet Transform for Multi-sensor Image Registration. January: 51-66

Marshall, Hans-Peter
A Methodology to Characterize Vertical Accuracies in Lidar-derived Products at Landscape Scales. August: 709-716

McNerney, Daniel
Design and Function of the European Forest Fire Information System. October: 965-973
Author Index

**McNamara, James P.**
Influence of a Dense, Low-height Shrub Species on the Accuracy of a Lidar-derived DEM. May: 421-431

**Meligrana, John**
Selecting Key Features for Remote Sensing Classification by Using Decision-Theoretic Rough Set Model. September: 787-797

**Miao, Xin**
Developing Efficient Procedures for Automated Sinkhole Extraction from Lidar DEMs. June: 545-554

**Miliaresis, George Ch.**
Book review: Synthetic Aperture Radar Polarimetry. August: 685

**Milne, Trevor**
Moving Toward Consistent ALS Monitoring of Forest Attributes across Canada: A Consortium Approach. February: 159-173

**Mita, Dath**
JACIE: A Model Partnership. August: 681-682

**Moe, Donald**
Metrically Preserving The USGS Aerial Film Archive. March: 225-228

**Morse, Edward**

**Mugnier, Clifford J.**
Grids & Datums Column: Bozna and Herzegovina. March: 229-230
Grids & Datums Column: Federal Republic of Somalia. September: 775
Grids & Datums Column: Islamic Republic of Iran. August: 683-684
Grids & Datums Column: Kingdom of Nepal. June: 507-508
Grids & Datums Column: Montenegro. December: 1087
Grids & Datums Column: Republic of Belarus. February: 115-116
Grids & Datums Column: Republic of Moldova. May: 403, May: 405
Grids & Datums Column: Republic of Rwanda. April: 317-318

**N**

**Nelson, Kurtis**
Towards Integration of GLAS into a National Fuel Mapping Program. February: 175-183

**Ni-Meister, Wenge**
A Multi-Scale Approach to Mapping Canopy Height. February: 183-194

**O**

**Olsen, Doug**
Geolocation Algorithm for Earth Observation Sensors Onboard the International Space Station. July: 625-637

**Ormeci, Cankut**
Parcel-Level Identification of Crop Types Using Different Classification Algorithms and Multi-Resolution Imagery in Southeastern Turkey. November: 1053-1065

**Ozdogan, Mutlu**
Parcel-Level Identification of Crop Types Using Different Classification Algorithms and Multi-Resolution Imagery in Southeastern Turkey. November: 1053-1065

**P**

**Pan, Hongbo**
Basic Products of the ZiYuan-3 Satellite and Accuracy Evaluation. December: 1131-1145

**Peng, Chunming**
Web-service-based Monitoring and Analysis of Global Agricultural Drought. October: 929-943

**Petersen, Steven L.**
Assessing the Relationship between Ground Measurements and Object-Based Image Analysis of Land Cover Classes in Pinyon and Juniper Woodlands. September: 799-808

**Peterson, Birgit**
Towards Integration of GLAS into a National Fuel Mapping Program. February: 175-183

**Petrone, Richard M.**
Moving Toward Consistent ALS Monitoring of Forest Attributes across Canada: A Consortium Approach. February: 159-173

**Prentzsch, Hans**
Comparison of Forest Attributes Derived from Two Terrestrial Lidar Systems. March: 245-257

**Previtali, Mattia**
Stitching and Processing Gnomonic Projections for Close-Range Photogrammetry. June: 573-582

**Q**

**Qingxi, Tong**
Temperature and Emissivity Separation from Thermal Airborne Hyperspectral Imager (TASI) Data. December: 1099-1107

**Qin, Rongjun**

**Qiu, Fang**
Developing an Object-based Hyperspatial Image Classifier with a Case Study Using WorldView-2 Data. November: 1027-1036

**Qiu, Xiaomin**
Developing Efficient Procedures for Automated Sinkhole Extraction from Lidar DEMs. June: 545-554

**Quackenbush, Lindi J.**

**R**

**Rampi, Lian P.**
The Effects of Data Selection and Thematic Detail on the Accuracy of High Spatial Resolution Wetland Classifications. July: 613-623
Ramspott, Matthew E.

Ranganathan, Jaganathan
Geolocation Algorithm for Earth Observation Sensors Onboard the International Space Station. July: 625-637

Reinartz, Peter
Band Grouping versus Band Clustering in SVM Ensemble Classification of Hyperspectral Imagery. June: 523-533

Ren, Wenwei
Selecting Key Features for Remote Sensing Classification by Using Decision-Theoretic Rough Set Model. September: 787-797

Riera-Tatché, Ramon

Robson, Edward S.
Tweeting Up a Storm: The Promise and Perils of Crisis Mapping. October: 865-879

Rodarmel, Craig
Assessing Lidar Accuracy with Hexagonal Retro-Reflective Targets. July: 663-670

Roncella, Riccardo
Change Detection and Deformation Analysis in Point Clouds: Application to Rock Face Monitoring. May: 441-455

Roundy, Bruce A.
Assessing the Relationship between Ground Measurements and Object-Based Image Analysis of Land Cover Classes in Pinyon and Juniper Woodlands. September: 799-808

Ruijin Ma
Rational Function Model in Processing Historical Aerial Photographs. April: 337-345

S

Salehi, Bahram

Samadzadegan, Farhad
Band Grouping versus Band Clustering in SVM Ensemble Classification of Hyperspectral Imagery. June: 523-533

Sankey, Temuulen T.
Influence of a Dense, Low-height Shrub Species on the Accuracy of a Lidar derived DEM. May: 421-431

San-Miguel-Ayanz, Jesus
Design and Function of the European Forest Fire Information System. October: 965-973

Scaini, Marco
Change Detection and Deformation Analysis in Point Clouds: Application to Rock Face Monitoring. May: 441-455

Schill, Steven R.
Book review: An Introduction to Contemporary Remote Sensing. September: 777

Schmitt-Harsh, Mikaela
Classification of Coffee-Forest Landscapes Using Landsat TM Imagery and Spectral Mixture Analysis. May: 457-468

Schneider, D.
Photogrammetric Techniques for the Determination of Spatio-temporal Velocity Fields at Glaciars San Rafael, Chile. March: 299-306

Schuch, Harold
Flat-Earth Thinking Removed. August: 677-679

Schwalbe, E.
Photogrammetric Techniques for the Determination of Spatio-temporal Velocity Fields at Glaciars San Rafael, Chile. March: 299-306

Seifert, Stefan
Comparison of Forest Attributes Derived from Two Terrestrial Lidar Systems. March: 245-257

Seigler, Taylor
A Least-Cost Algorithm Approach to Trail Design Using GIS. June: 498-505

Serbin, Shawn P.

Sertel, Elif
Parcel-Level Identification of Crop Types Using Different Classification Algorithms and Multi-Resolution Imagery in Southeastern Turkey. November: 1053-1065

Shan, Jie
Understanding the Spatio-Temporal Pattern of Tweets. September: 769-773

Shanley, Lea A.
Tweeting Up a Storm: The Promise and Perils of Crisis Mapping. October: 865-879

Shao, Zhenfeng

Shi, Wei
Improved Nonsubsampled Contourlet Transform for Multi-sensor Image Registration. January: 51-66

Shunshi, Hu
Temperature and Emissivity Separation from Thermal Airborne Hyperspectral Imager (TASI) Data. December: 1099-1107

Sinha, Priyakant

Skaw, Jerry
Surveyor Switches to Digital Aerial Camera, Efficiently Captures High-Quality Images. January: 5

Smith, Alistair M.S.
A Methodology to Characterize Vertical Accuracies in Lidar-derived Products at Landscape Scales. August: 709-716

Sohn, Gunho
Point-based Classification of Power Line Corridor Scene Using Random Forests. September: 821-833

Song, Wenbo

Sridharan, Harini
Developing an Object-based Hyperspatial Image Classifier with a Case Study Using WorldView-2 Data. November: 1027-1036
Author Index

Stein, Alfred

Stein, Beth R.
A Least-Cost Algorithm Approach to Trail Design Using GIS. June: 498-505

Stensaa, Gregory L.
JACIE: A Model Partnership. August: 681-682

Stephens, Scott

Stoker, Jason M.
Forward: Special Issue—Are We Moving Past the Pixel? The Third Dimension in National Landscape Mapping. February: 133-134

St-Onge, Benoit
Moving Toward Consistent ALS Monitoring of Forest Attributes across Canada: A Consortium Approach. February: 159-173

Stoter, Jantien
Generation and Dissemination of a National Virtual 3D City and Landscape Model for the Netherlands. February: 147-158

Stow, Douglas A.
Histogram Curve Matching Approaches for Object-based Image Classification of Land Cover and Land Use. May: 433-440

Surendrababu, Jayashree
A Least-Cost Algorithm Approach to Trail Design Using GIS. June: 498-505

Sutton, Paul C.

Sweeney, Sean P.
Classification of Coffee-Forest Landscapes Using Landsat TM Imagery and Spectral Mixture Analysis. May: 457-468

Syafiudin, Moh. Fifik
Land Subsidence Characteristics in Bandung City, Indonesia as Revealed by Spaceborne Geodetic Techniques and Hydrogeological Observations. July: 639-652

Synder, Gregory I.
The Benefits of Improved National Elevation Data. February: 105-110

T

Talbot, Bryan G.

Talbot, Lisa M.

Tang, Xinning
Basic Products of the ZiYuan-3 Satellite and Accuracy Evaluation. December: 1131-1145

Tan, Yihua
Hierarchical Method of Urban Building Extraction Inspired by Human Perception. December: 1109-1119

Tao, Chao
Hierarchical Method of Urban Building Extraction Inspired by Human Perception. December: 1109-1119

Thenkabail, Prasad S.
PE&RS Special Issue: Hyperspectral Remote Sensing of Vegetation and Agricultural Crops. April: 329

Thomas, Valerie A.

Thome, Kurt
JACIE: A Model Partnership. August: 681-682

Tilley, Kim
Letter from the PE&RS Executive Editor. December: 1091

Tinkham, Wade T.
A Methodology to Characterize Vertical Accuracies in Lidar-derived Products at Landscape Scales. August: 709-716

Tolcer, Bryan P.
The Effects of Data Selection and Thematic Detail on the Accuracy of High Spatial Resolution Wetland Classifications. July: 613-623

Tonolo, Fabio Giulio
Forward: Special Issue on Mobile Mapping for Disaster Relief. October: 901-903

Toure, Sory I.
Histogram Curve Matching Approaches for Object-based Image Classification of Land Cover and Land Use. May: 433-440

Townsend, Philip A.

Tu, Enmei
An Experimental Comparison of Semi-supervised Learning Algorithms for Multi-spectral Image Classification. April: 347-357

Tuttle, Benjamin T.

V

Vega-Garcia, Cristina

Venesjärvi, Riikka
Geospatial Web Services for Responding to Ecological Risks Posed by Oil Spills. October: 905-914

Vergara, Dante G.
Assessing the Performance of Linear Feature Models: An Approach to Computational Inference. September: 847-855

Walker, Robert T.
Assessing the Performance of Linear Feature Models: An Approach to Computational Inference. September: 847-855
Wang, Le
Registration of Aerial Imagery and Lidar Data in Desert Areas Using the Centroids of Bushes as Control Information. August: 743-752

Wang, Ruirui
Improved Nonsubsampled Contourlet Transform for Multi-sensor Image Registration. January: 51-66

Wang, Xiangjun

Wedding, Lisa M.
Book review: An Introduction to Using GIS in Marine Biology. December: 1089-1090

Weeks, John R.
Histogram Curve Matching Approaches for Object-based Image Classification of Land Cover and Land Use. May: 433-440

Wei, Hong

Wendt, A.
Photogrammetric Techniques for the Determination of Spatio-temporal Velocity Fields at Glaciar San Rafael, Chile. March: 299-306

Whitmore, Ceri
Design and Function of the European Forest Fire Information System. October: 965-973

Wiechert, Alexander
Leadership Interview: Microsoft UltraCam. January: 6

Wong, Frankie K. K.
Combining Hyperspectral and Radar Imagery for Mangrove Leaf Area Index Modeling. May: 479-490

Wood, John

Wu, Bo
A Flexible Method for Zoom Lens Calibration and Modeling Using a Planar Checkerboard. June: 555-571

Wu, Jiaying
3D Tree Reconstruction from Simulated Small Footprint Waveform Lidar. December: 1147-1157

Wu, Shuo-Sheng
Developing Efficient Procedures for Automated Sinkhole Extraction from Lidar DEMs. June: 545-554

Wylie, Bruce
Towards Integration of GLAS into a National Fuel Mapping Program. February: 175-183

Wynne, Randolph H.

Xie, Feng
Selecting Key Features for Remote Sensing Classification by Using Decision-Theoretic Rough Set Model. September: 787-797

Xie, Hongjie
Developing Efficient Procedures for Automated Sinkhole Extraction from Lidar DEMs. June: 545-554

Xueke, Li
Temperature and Emissivity Separation from Thermal Airborne Hyperspectral Imager (TASI) Data. December: 1099-1107

Yagci, Ali L.
Web-service-based Monitoring and Analysis of Global Agricultural Drought. October: 929-943

Yang, Jie
An Experimental Comparison of Semi-supervised Learning Algorithms for Multispectral Image Classification. April: 347-357

Yingqian, Gao
Temperature and Emissivity Separation from Thermal Airborne Hyperspectral Imager (TASI) Data. December: 1099-1107

Yoo, Sanglim

Yue, Huanyin
Range Image Techniques for Fast Detection and Quantification of Changes in Repeatedly Scanned Buildings. August: 695-707

Zhang, Fan
Registration of Aerial Imagery and Lidar Data in Desert Areas Using the Centroids of Bushes as Control Information. August: 743-752

Zhang, Guo
Basic Products of the ZiYuan-3 Satellite and Accuracy Evaluation. December: 1131-1145

Zhang, Liqiang
Range Image Techniques for Fast Detection and Quantification of Changes in Repeatedly Scanned Buildings. August: 695-707

Zhang, Xiaodong
Geolocation Algorithm for Earth Observation Sensors Onboard the International Space Station. July: 625-637

Zhang, Yeting
A Flexible Method for Zoom Lens Calibration and Modeling Using a Planar Checkerboard. June: 555-571

Zhang, Ying
A Spatial-Spectral Methodology to Detect Narrow Shadows on Satellite Imagery: A Case Study of Calgary, Canada. March: 269-276

Zhang, Yun

Zhang, Zhaocai
Author Index

Zheng, Benrui

Zheng, Shunyi
Registration of Optical Images with Lidar Data and Its Accuracy Assessment. August: 731-741

Zhong, Ming

Zhou, Liang

Zhou, Ping
Basic Products of the ZiYuan-3 Satellite and Accuracy Evaluation. December: 1131-1145

Zhou, Yang
Registration of Optical Images with Lidar Data and Its Accuracy Assessment. August: 731-741

Zhu, Qing
A Flexible Method for Zoom Lens Calibration and Modeling Using a Planar Checkerboard. June: 555-571

Zhu, Xiaoyong
Basic Products of the ZiYuan-3 Satellite and Accuracy Evaluation. December: 1131-1145

Zou, Zheng-rong
Hierarchical Method of Urban Building Extraction Inspired by Human Perception. December: 1109-1119