

# CONTENTS: ACADEMIC PRESENTATIONS

## FOSS GIS TOOLS AND COMPONENTS

Calculating NADCON Grids using GeoTools J Jezek .....	1
Multi-Environment General Purpose Applications Built with Terralib F A Bede, R M Gregório, L P Masiero, M Metello, E S Abreu, M R Petinati, U M de Freitas and M T de Carvalho .....	7
An Extensible, Interface-based, Open Source GIS Paradigm: MapWindow 6.0 Developer Tools for the Microsoft Windows Platform H A Dunsford and D P Ames .....	14
PAL - A Cartographic Labelling Library O Ertz, M Laurent, D Rappo, A Sae-Tang and E Taillard .....	23

## LAND CLASSIFICATION AND CLIMATE CHANGE

Using Airborne Laser Scanner Data and Open Source Software for a Glacier Inventory C Knoll and H Kerschner .....	33
Open-source Versus Proprietary GIS on Landscape Metrics Calculation: A Case Study W-C Wang, J-L Yang, Y-Y Lin .....	41
Urban Spatial Growth and Land use Change in Riyadh: Comparing Spectral Angle Mapping and Band Ratioing Techniques Y A Aina, J H van der Merwe and H M Alshuwaikhat .....	51

## STANDARDS AND INTEROPERABILITY

The South African Address Standard and Initiatives towards an International Address Standard A K Cooper and S Coetzee .....	58
Can the South African Address Standard (SANS 1883) Work for Small Local Municipalities? S Coetzee and A Cooper .....	71
Editing XML Metadata Files with the Aid of the Open-Source Editor MEE T Kubik and B Kopańczyk .....	82
Multipurpose Metadata Management in gvSIG L Díaz, M Gould, A Beltrán, A Llaves and C Granell .....	90

## SOFTWARE ENGINEERING AND GIS PRODUCTION

Using Supply Chain Management to Enable GIS Units to Improve their Response to their Customers' Needs P Schmitz .....	100
Factors Leading to Success or Abandonment of Open Source Commons: An Empirical Analysis of Sourceforge.net Projects C M Schweik, R English and S Haire .....	108
Open Source Software: Risk Management from an Intellectual Property Perspective K Hasija and B Narayanan .....	118
FOSS4G Certification Issues in the Development of a Large Telecommunication Application J G Rocha, R Alves and P Machado .....	125

## WATER RESOURCE MANAGEMENT

Using Keyhole Markup Language to Create a Spatial Interface to South African Water Resource Data through Google Earth M Silberbauer and W Geldenhuys .....	133
How Open Source GIS and Related Tools can Help in African Project and Projects can Help to Develop New Tools: The Case of Rwanda and the New GRASS-Epanet Interface M Ciolli, M Righetti, C Sboarina, C Tattoni, A Vitti, P Zatelli and P Bertola .....	144
Efficient Constrained Delaunay Triangulation Implementation in Java for Spatial Hydrological Analysis T Leduc, E Bocher and F G Cortés .....	151

## DISASTER MANAGEMENT

The Andean Information System for Disaster Prevention and Relief: A Case Study of Multi-National Open-Source SDI M Molina, S Bayarri and R Vargas .....	157
GIS: A Rapid Deployment GIS Framework for Humanitarian Relief Operations D Bitner, F Boon, M Careem and G Treadgold .....	165
Natural Hazards and Risk Assessment: The FOSS4G Capabilities M Cannata and M Molinari .....	172
GIS-based Atmospheric Dispersion Modelling N Bozon and B Mohammadi .....	182

## SPATIAL DATA

MonetDB, A Novel Spatial Column-Store DBMS M Vermeij, W Quak, M Kersten and N Nes .....	193
A Data Model for Efficient Address Data Representation – Lessons Learnt from the Intiendo Address Matching Tool A A Rahed, S Coetzee and M Rademeyer .....	200
A Comparison of Data File and Storage Configurations for Efficient Temporal Access of Satellite Image Data A Bachoo, F van den Bergh and A Gazendam .....	214
Providing Access to Terabytes of Earth Observation Data in an International Organization - Infrastructure and Services P Hasenohr and A Burger .....	223

## MODELS, SIMULATIONS AND RISK ASSESSMENT

An Open Source Model for the Simulation of Granular Flows: First Results with GRASS GIS and Needs for Further Research M Mergili .....	231
Optimal Exploration Target Zones P Debba, E M J Carranza, A Stein and F D van der Meer .....	239
Quality Management for 3D/4D Meteorological Data with Paraview and GRASS GIS P. Löwe and J. Klump .....	247

## COLLABORATIVE GIS

Development of Real-time Tracking and Log Management System using Free and Open Source Software D Yoshida and V Raghavan .....	256
Participatory Free and Open Source GIS in the Web 2.0 - Exploring Trends in GIS in Times of Collaborative Creation D M Nascimento and V Raghavan .....	264

## ENVIRONMENTAL MONITORING AND WIRELESS NETWORKING

GEM-PP: A GIS Emissions Pre-Processor to Ingest European Emission Inventory (EMEP/CORINAIR) into Photochemical Transport Models D Conte, G P Marra, C Mangia, U Rizza, I Schipa and A Tanzarella .....	272
On-line Air Quality Monitoring and Warning Support System for Bucharest Urban Area V Craciunescu, M Caian, C Flueraru and A Nertan .....	279
NAMGIS – A Context-Aware Mobile Web GIS M A Brovelli, D Magni, M Brioschi, M Legnani and F Corcoglioniti .....	289
Assessment of Location Sensitivity of Voronoi-based Sensor Deployment and Reconfiguration using GIS G Nicholls, D Kourie and Ti Strauss .....	297

## HEALTH, NATURE CONSERVATION AND BIODIVERSITY

Free GIS Software meets Zoonotic Diseases: From Raw Data to Ecological Indicators M Neteler .....	308
Spatial Analysis and Visualization of Genetic Biodiversity R G Beiko, J Whalley, S Wang, H Clair, G Smolyn, S Churcher, M Porter, C Blouin and S Brooks .....	316
Application of Open Source and Proprietary Software to Optimise Meadow Bird Management Schemes in the Netherlands B Vanmeulebrouk, D Melman, O Roosenschoon, A Schotman, H Meeuwssen and M Kiers .....	325

## SDI

Beyond FOSS 3D GIS Technologies: A Chance for Developing Countries J L Encarnação, R de Amicis, G Conti and J Rix .....	333
urbSAT: from Spatial SQL to Urban Indicators E Bocher, T Leduc, N Long, F Gonzales-Cortes and G Moreau .....	341
Implementation of the Elements of the Polish National Spatial Data Infrastructure based on Open Source Software T Kubik, W Paluszyński and P Netzel .....	349
A Review of the Status of Spatial Data Infrastructure Implementation in Africa P Makanga and J Smit .....	357

## EDUCATION AND TRAINING, FOSS IN CORPORATES AND GOVERNMENT

Corporate Applications Built with TeCOM: A TerraLib Microsoft Visual Component R M Gregorio, K A B Kinoshita, W Carneiro, H Medeiros, A Siqueira and U M de Freitas .....	366
Student Recruitment for Transformation at the University of Cape Town: A Spatial Analysis of the Alternative Admissions Research Project, 2000 – 2005 T Rambuda, S Butcher and A Cliff .....	374
The Challenges of GIS Education and Training: GIS use by Municipal Urban and Regional Planning H J W Marais .....	385
Challenges Affecting the OSS Adoption Rate in the SA Government J Mtsweni and E Biermann .....	400

## WEB SERVICES

An Open Service Network for Geospatial Data Processing L Díaz, C Granell, M Gould and V Olaya .....	410
Integration of GRASS Functionality in Web based SDI Service Chains J Brauner and B Schaeffer .....	420
World Wide Access to Amazon Forest Inventories of Non-Timber Products F Costa, S Desmoulière and O Farias .....	430
Semantically Enabled SOS with Topic Maps R Barta and T Bleier .....	439



## CONTENTS: GENERAL PRESENTATIONS





### IMPROVING FOSS GIS CARTOGRAPHY AND MAP PRODUCTION

Publishing Web Maps with QGIS Mapserver I Iosifescu-Enescu and M Hugentobler .....	Abstract Only
MapFaces: A Rich Client Mapping Framework Build on Top of JSF V Heurteaux.....	Abstract Only
Google Earth Powered by MapGuide Open Source R Bray.....	Abstract Only
From the Chart Table to the Browser: Deploying Historical Maps at Scale S Erle.....	Abstract Only

### FOSS IMPLEMENTATION

Building an Application Framework based on OpenLayers and ExtJS B van den Eijnden and T van Menen .....	Abstract Only
Information: A must for Development M de Blois .....	Abstract Only
BeeGis: Digital Field Mapping that just Works A Antonello, M de Donatis, S F Franz-Josef Behr and A Rimayanti.....	Abstract Only
Analysis of Temporal Remote Sensing Data with Opticks T Clarke .....	Abstract Only


### TRANSITION TO FOSS

Reasons for the Non-use of FOSS GIS during the Reconstruction and Rehabilitation Process after the Tsunami 2004 in Nanggroe Aceh Darussalam, Indonesia or Call for a Stronger Lobby for FOSS GIS in Developing Countries T Drey, M Razali, M Widodo and Z St .....	
WebGIS Platform – A Commercial Successful OpenSource-based Concept in Scandinavia A Oxenstierna, B Harrell and L Uller .....	
Tapping into OpenSource L Coetzee .....	
Transitioning to FOSS4G at North West Geomatics R Uebbing.....	Abstract Only
A Year of Full-Speed FOSS- Winning the Hearts, Minds, and Business Case J Cook and G Jones .....	Abstract Only
Opticks: Transitioning a Proprietary Remote Sensing Analysis Tool into Open Source T Clarke .....	Abstract Only
Easing Transition to Open Source Geo-Spatial Data Manipulation in GML I Wadembere .....	Abstract Only
CAD-GIS Integration: Achieving Commercial Reality with Open Source Solutions C Hoult.....	
Anisotropic Cost Surfaces for Grass J C Torres .....	Abstract Only
Migrating from a Commercial Internet Map Server to a Free and Open Source Solution A Borghuis .....	Abstract Only
GFOSS.it: The Italian OSGeo Chapter P Cavallini.....	Abstract Only

## NEW FOSS DEVELOPMENTS

SpatiaLite: An Extension Enabling Spatial Processing on SQLite A Furieri .....	Abstract Only
A New GRASS Module for Computing Visibility on Grids L Toma and W K Richard.....	Abstract Only
Using SLD Definitions to Display Charts in a Deegree WMS J Mays .....	
Implementation of Distributed Service Oriented Framework for 3D Visualization in Web-GIS Clients S Ninsawat, V Raghavan and S Masumoto .....	
gvSIG Mobile: How to Code for Desktop and Mobile GIS/SDI M Montesinos .....	Abstract Only
SUAS MapServer:- An Open Source Framework for Extended Web Map Services F-J Behr and H Li .....	Abstract Only
Shortest Path Search for Real Road Networks and Dynamic Costs with pgRouting A Patrushev .....	Abstract Only
Comparing the Performance of Open Source Web Map Servers J Deoliveira and A Aime.....	Abstract Only
Web Processing and Spatial Analysis with the ILWIS Open Source GIS Software and GEOSS Data R Lemmens, M Schouwenburg and S O Sunday .....	
The use of OpenLayers for the Demonstration and Visualisation of Environmental Research Applications M Dresen and D M. Trivedi.....	
Bringing Data and Metadata Closer Together J Ticheler .....	Abstract Only
GeoServer: Past, Present and Future J Deoliveira and A Aime.....	Abstract Only
GeoServer and the GeoWeb C Holmes and J Deoliveira .....	Abstract Only
GDAL/OGR Project Status Report F Warmerdam.....	Abstract Only
gvSIG Status Report. Towards an Open Organization M Montesinos and G Carrión.....	Abstract Only
A Free Graphical Modelling Tool for Geospatial Analysis V Olaya.....	

## INTEROPERABILITY

WFS Simple: The Welterweight Data Access Standard R Singh .....	Abstract Only
A Few Mouse Clicks Away: Configuration of Deegree WCS, WFS and WMS with OpenJUMP J Mays and J Fitzke.....	
Proj4js - Coordinate System Transformations in the Browser M Adair.....	Abstract Only
Coordinate Systems: PROJ.4, EPSG and OGC WKT F Warmerdam.....	Abstract Only
The Definition of Open in OGC, OSGeo and OSM A Christl .....	Abstract Only
ESRI's Open Standards and IT Interoperability J Foust.....	Abstract Only
Improve Metadata Creation Process using OpenSource F Prunayre.....	Abstract Only
Constellation: An Infrastructure for Geospatial Data Services for Scientific and Environmental use V Heurteaux and M Treguer .....	Abstract Only



## FOSS GIS BUSINESS

### FOSS Business Models in the Spatial Realm

A Christl ..... Abstract Only

### POTIMART - An Open Source GIS Platform for Transportation


C Philipona ..... Abstract Only

### A Deeper Understanding of Trade Areas and Target Markets for Growth and Expansion Opportunities



G Mitchley ..... Abstract Only

## WEB SERVICES


### Application of Open Source OGC Sensor Web Implementations for Disaster Management and Environmental Monitoring

C Stasch and S Jirka ..... 

### Integration of Geo-Spatial Web Services using Adobe Flex

B Vanmeulebrouk, R Lokers and J Bulens .....  


### WebServices Application with Django and OpenLayers

G Sueur ..... 

### WebGIS in Times of the Web at Version 2.0 or: Buzzwords, Anyone?

T Adams and M Jansen ..... Abstract Only

### Web Processing Services in the context of the 52°North Geoprocessing Community

B Schaeffer and T Foerster ..... 

### Sensor Observation Service from UMN MapServer meets OpenLayer

T Adams and D Helle ..... Abstract Only

### MDweb 2.0: A Java/JEE Metadata Catalog

J-C Desconnets ..... Abstract Only

### Apache vs LightHttpd Benchmark and Optimization for Serving Huge Tilesets


G Sueur ..... 

## CASE STUDY

### Promoting Open Access to Environmental Data using Open Source Software

P Mooney ..... Abstract Only

### Modus Operandi of a FOSS GIS project in India

R K Vundavalli, S N Rao and N S Prasad ..... 

### Promotion of Access to Spatial Information using Web-based Open Source GIS to Cape Town Communities Living at Informal Settlement

J Ditsela and U Rivett ..... Abstract Only

### Open-Source based Market Information Systems - One Option for Developing Nations

T Adams ..... Abstract Only



### MapFish: A Web-Mapping Development Framework

E Lemoine ..... Abstract Only

### Mapping the Sanitary Sewers of a South African City - First Experiences with FOSS GIS


C M Leat and D Still ..... Abstract Only

### Mining Spatial Data from GPS Traces for Automated Map Generation


F Lima and M Ferreira .....  

### Open Source Web-GIS of the UN High Commissioner for the Refugees (UNHCR):

A Model for the UN

L St-Pierre, E Legoupil and C Philipona ..... 


### Improving Open Source GIS-SDI Integration: The Web Service Publishing Extension for gvSIG

J V Higón and S Bayarri ..... 

### Developing Open Source Tools for Regional Land use Planning

J Hamm ..... Abstract Only

### Risk Model for OSS: Valuing Hidden Costs

K Hasija and B Narayan ..... 

## OPEN DATA

Welcome to OSGeo - Your FOSS Community

T Mitchell ..... Abstract Only

OpenLayers Vector Style

T Schaub ..... Abstract Only

Web 2.0 brings GIS to the World Wide Web

D Frigne.....



A Spatial DBMS Buyer's Guide

W Quak, M Vermeij and W de Haas..... Abstract Only

## PARTICIPATORY GIS

OpenStreetMap in India, Free Data in the Developing World

M Maron and S Erle..... Abstract Only

Phoenix: A Web-Based Collaboration Tool

D Giroux .....



Integrating FOSS Web-GIS Tools with Web2.0 Capabilities to Produce Scalable City

Information Toolkit, Supporting Participatory GIS

N Fernando, W de Silva, I Tantrigoda and S Widyasekara.....



## GOVERNMENT

Expanding the Role of Open Source GIS in Government

B Adams ..... Abstract Only

Senegalese Land Register Modernisation through Open Source Softwares

G Fenoy..... Abstract Only

Critical Success Factors (CSF's) for Sustainability of Geographical Information

Systems (GIS) in Government Institutions of Developing Countries

P Reinecke .....



A Case Study of GIS Analysis for the Determination of Service Delivery

A de Klerk ..... Abstract Only

The use of FOSS in Urban Modelling and Simulation

A Botha and L Waldeck ..... Abstract Only

The use of FOSS GIS in Integrated Geographical Systems in Local Government

in South Africa

N Elema..... Abstract Only

Evaluation of Sustainability Indicators for Coastal Municipalities of the State

of Rio de Janeiro (Brazil) using Free Software

R Souto..... Abstract Only

Integrating Commercial and OpenSource Software for an Environmental Health

Information System for the City of Tshwane Metropolitan Municipality

M Pelser..... Abstract Only

## GOVERNMENT AND PARTICIPATORY GIS

OpenGeocoding.org – A Free, Participatory, Community Oriented Worldwide

Geocoding Service

F-J Behr and A Rimayanti..... Abstract Only

Location based Service for Urban Management in the City of Johannesburg

M Hattingh and I Tchoukanski ..... Abstract Only

GeoLiberum: A Collaborative Approach to Capacity Building, FOSS GIS

Implementation and Deployment in Municipal Administration in Developing

Countries

M McCormick and J J del Toro ..... Abstract Only

SNIT-Chile, Experience and Innovation for the Society of Knowledge. Good

Government, Interoperability and Social Web: A Methodology in Process

R Hauser and C Aqueveque..... Abstract Only



## EDUCATION

The use of Open Source GI Software in Teachings

E Dresen and M Dresen.....



GIS in the School Curriculum - Perceptions and Challenges facing Educators in the Western Cape, South Africa

D Scheepers and M Carolissen..... Abstract Only

Introducing GIS into the South African Educational Market

L Rust and R Kindler..... Abstract Only

A Comparison of South African Unit Standard based Qualifications in Geo-Spatial

Information Science against National and International Benchmarks

H J du Plessis..... Abstract Only

## WATER

J-Hydro: An Implementation of the Digital Watershed Concept

S Franceschi, R Rigon and A Antonello..... Abstract Only

Web Enabled Inter-operable Spatial Data System for Water Resources Applications in India using Open Source Geoserver

V Bothale, A V Banu, R V Bothale, J R Sharma..... Abstract Only

A Geostatistical Analysis of Water Losses in an Urban Utility using the R and Tinn-R Open-Source Statistical Computing Environments

F Kizito, G Ngirane-Katashaya and R Thunvik.....



The use of Open Source (An Option for Developing) Technology in Determining the Beginning of the Defined Watercourse for Determining Floodlines in the Apies River Basin

D Mahlangu ..... Abstract Only

## WATER AND EDUCATION

JGrass: The Horton Machine

A Antonello, R Rigon and S Franceschi ..... Abstract Only

Development and Implementation of an Open-Source Based Internet Accessible Water Quality Management System for Improving the Quality of Water Services in South Africa

P de Souza, A Wensley, L Manus, E Delport, F Stevens, G Mackintosh and M Ramba.....



A Free GIS Book

V Olaya..... Abstract Only

GIS in the Geography Curriculum: Teacher Training

E Mcpherson, M Carolissen and D Scheepers ..... Abstract Only

## HEALTH

TerraLib as an Open Source Platform for Public Health Applications

K R Ferreira, L Vinhas, A M V Monteiro, G R Queiroz, E F Castejon, J C Pinto de Garrido, L T Hara, P R de Andrade Neto, P J Ribeiro Junior and R M Assunção.....



Analyzing Walkable Communities, and Publishing Interactive Results on the Web



J Livni..... Abstract Only

Development of a Malaria Decision Support System based on Open Source Technologies


N Morris and S Coetzer ..... Abstract Only






## DISASTER MANAGEMENT

- An Open Source Model for the Simulation of Granular Flows: First Results with GRASS GIS and needs for Further Investigations  
M Mergili, K Schratz, M Thalhammer, W Fellin and A Ostermann .....  
- Knowledge Management and Humanitarian Response to Complex Humanitarian Emergencies  
P Bartel ..... Abstract Only
- Integrating GIS into FOSS Disaster Management System  
D Bitner, F Boon, M Careem, G Treadgold ..... Abstract Only
- Rebuilding a City through Community Participation, Neogeography and GIS  
A Turner ..... Abstract Only


## ENVIRONMENT

- Caribbean PestWatch: An Agricultural Pest Monitoring System for the Caribbean Utilizing Open Source Software  
S Crawford ..... Abstract Only
- Dapple Global Data Explorer  
J Beaurain ..... Abstract Only
- Implementing Web Services for NASA's Terrestrial Observation and Prediction System  
S Hiatt ..... Abstract Only
- Using FOSS and Proprietary GIS in Assessing Water use by Alien Vegetation  
B Woff-Piggott, S. Mallory, S. Hardy and N van Wyk ..... 

## WEB - ENVIRONMENT

- Harvest Choice - An Open Source System to Deliver Agricultural Data  
J Harpster ..... Abstract Only
- OMA - Lightning Application  
W Schaubroeck ..... 
- Location-based Activity Reporting of Forest Operations using Components of Open Source GIS  
J Vauhkonen and T Tokola ..... 
- Into the Wild: Tapping the Potential of FOSS GIS for Geoparks and Nature Interpretation  
P Loewe ..... 

## IMAGES

- Forest Crown Closure Assessment and Tree Species Classification using Multispectral and Hyperspectral Imageries  
J Mahboob ..... Abstract Only
- Publishing Imagery using WMS - How do the Open Source Products Fare?  
B Tonkin and M Douville ..... 
- About the ImageWiki Project  
A Hook ..... Abstract Only
- Introduction to ASPRS LAS Data Processing with libLAS  
M Loskot ..... Abstract Only

## POSTER PRESENTATIONS

- Investigating the Validity of a Open Source 3-D GIS Urban Simulation Modelling  
 Software (Sim City) in the Urban Planning Environment  
 A Gunter and D Hasenbroek ..... Abstract Only
- PostgreSQL/PostGIS, Geoserver and OpenLayers at Electricité de France  
 L Pierre ..... Abstract Only
- An Open-Source Integrated GIS Solution (IGS) for Syrian Municipal Administration  
 Modernisation Project  
 F Colombo ..... Abstract Only
- Use of Open Source GIS Tools to Build the RISKMED Early Warning System  
 Web Portal for Severe Weather Events  
 G P Marra, D Conte, M M Miglietta and A Moscatello ..... Abstract Only
- Development of an Agricultural Information Management System (AIMS)  
 for the SADC region  
 S Dieleman ..... Abstract Only
- Developing the Historical Agro-Environment Browsing System using FOSS4G  
 N Iwasaki and D Sprague ..... Abstract Only
- The use of Open Source GI Software in Teachings  
 M Dresen and E Dresen ..... Abstract Only
- The use of OpenLayers for the Demonstration and Visualisation of  
 Environmental Research Applications  
 M Dresen and D M Trivedi ..... Abstract Only
- Massachusetts Institute of Technology (MIT) GeoWeb Expands Access to  
 GIS Data for the MIT Community through Open Source Tools  
 L Sweeney ..... Abstract Only
- Open Source GIS in Anthropology  
 C A Engel ..... Abstract Only
- GRASS Development with Eclipse/CDT  
 P Loewe ..... Abstract Only
- Using PostGIS, Geoserver and Google Earth to Visualise Sensor Measurements  
 J Jezek ..... Abstract Only
- Open Source GIS for Health Data Visualisation  
 J Jezek and O Cerba ..... Abstract Only
- slaxGIS: A GIS-Oriented Live USB Linux system  
 M Negretti and E Realini ..... Abstract Only
- Promotion of Access to Spatial Information using Web-based Open Source GIS  
 to Cape Town Communities Living at Informal Settlement  
 J Ditsela ..... Abstract Only
- Building an Open Source Mobile GIS Client  
 S M. Ottens ..... Abstract Only
- Mapping Kit for Drupal  
 J Pulles ..... Abstract Only
- Students in Action: Broetlikrones Project  
 O Ertz, G Cherpillod, J Freyres, C Hauenstein, C Chiri, A Sae-Tang  
 and D Rappo ..... Abstract Only

## LABS

Practical Introduction to Spatial Data Integrator Powered by Talend F Prunayre .....	Abstract Only
Working with GeoServer J Deoliveira and C Holmes .....	Abstract Only
Practical Introduction to the MapFish Web-Mapping Framework E Lemoine .....	Abstract Only
Introduction to the 52°North Web Processing Service B Schaeffer .....	Abstract Only
MapWindow GIS Lab - Introduction to Custom GIS Application Development for Windows B Marchionni and T Dunsford .....	Abstract Only
Practical Introduction into 52°North's Sensor Observation Service C Stasch .....	Abstract Only
PMGenerating End-to-End Web Mapping Applications with geGIS J de Moerloose .....	Abstract Only
Creating MapGuide Maps with Style R Bray .....	Abstract Only
Practical Introduction to OrbisGIS E Bocher, T Leduc and F González Cortés .....	Abstract Only
Raster Processing and Preparation with GDAL F Warmerdam and M Loskot .....	Abstract Only
Configuration of Deegree Web Services with an OpenJUMP based ConfigurationTool J Mays and J Fitzke .....	Abstract Only
Extending the Functionality of QGIS with Python Plugins M Hugentobler, H Düster and T Sutton .....	Abstract Only
Practical Introduction to Fusion M R Adair and J-S Lacroix .....	Abstract Only
A Practical Introduction to BirdEye: A GeoVisualization ToolKit J Bellone .....	Abstract Only
Integration of Access Controlled OGC Web Services in Identity Federation Systems based on 52°North Security Solutions and OpenSSO M Reiprecht .....	Abstract Only
Using and Extending ILWIS Open Source GIS Software together with GEONETCast Services for Web-based Satellite Image Analysis R Lemmens and M L Schouwenburg .....	Abstract Only
Mapping of Information: A must for Development M de Blois .....	Abstract Only
There and Back Again. Using uDig to Perform Real-World Tasks. J Eichar .....	Abstract Only
Supporting Sustainable Development: The GRASS Opportunity M Cannata and M A Brovelli .....	Abstract Only





## WORKSHOPS

Getting Started with MapServer J McKenna, P Nacionales and T Mitchell .....	Abstract Only
Setting up a Geospatial Catalog using GeoNetwork J Ticheler .....	Abstract Only
Collaborative Mapmaking with GeoDjango J Livni and C Schmidt .....	Abstract Only
FOSS4G Routing with pgRouting tools and OpenStreetMap Road Data C Philipona and D Kastl .....	Abstract Only
Standardized Geoprocessing with 52°North Open Source Software B Schaeffer .....	Abstract Only
Introduction to Geoportal Management using Mapbender A B Christl .....	Abstract Only
OpenLayers Building Web Mapping Applications with a Solid Foundation T Schaub .....	Abstract Only
Practical Introduction to MapGuide Open Source T Fukushima and P Rieks .....	Abstract Only
Mapserver OGC Web Services Workshop B van den Eijnden, A Yewondwossen and J McKenna .....	Abstract Only
MapWindow GIS Workshop Introduction to Custom GIS Application Development for Windows B Marchionni and T Dunsford .....	Abstract Only
Practical Introduction to GRASS and Related Software for Beginners M Ciolli, P Zatelli and C Tattoni .....	Abstract Only
The Open-Geo Stack: Open-Layers, GeoServer, PostGIS J Deoliveira, T Schaub and C Holmes .....	Abstract Only
Hydrological and Geomorphological Terrain Analysis with JGrass S Franceschi and A Antonello .....	Abstract Only
Introduction to gvSIG/SEXTANTE as Desktop GIS with Advanced Spatial Analysis and SDI Publishing Tools S Bayarri, V Olaya, J V Higón and L Díaz .....	Abstract Only
Web based GIS and Domain Model Integration P de Graef .....	Abstract Only