

1. THEORETICAL CARTOGRAPHY

Chair: Alexander Wolodtschenko

Vice-chair: Hansgeorg Schlichtmann

August 6th, 10:30 - 12:00 (Room: Evening Space 1)

COMMISSION MEETING

August 5th, 15:00 – 16:30 (Room: Galaxy 3)

Oral session 1: Theoretical-Methodical Frames

Chairmen: H. Schlichtmann / A. Bianchin

1. M.E. Denil **A PERFORMATIVE ONTOLOGY OF CARTOGRAPHY** (USA)
2. L. Brodersen **PARADIGMSHIFT FROM CARTOGRAPHY TO GEO-COMMUNICATION** (Denmark)
3. A. Wolodtschenko **TOWARDS A CARTOSEMIOTIC COMPETENCE AND KNOWLEDGE** (Germany)
4. L.S. Issmael, P.M.L. Menezes **CARTOGRAPHY COGNITIVE: AN INSTRUMENT TO BECOME SPATIAL OF GEOGRAPHIC INFORMATION** (Brazil)

August 5th, 17:00 – 18:30 (Room: Galaxy 3)

Oral session 2: New Tasks and Ideas

Chairmen: Y. Ferland / I. Rotanova

1. A. Bianchin **THEORETICAL CARTOGRAPHY ISSUES IN THE FACE OF NEW REPRESENTATIONS** (Italy)
2. H. Kremers **WHAT IS THE SITUATION?** (Germany)
3. D.V. Lisitsky, S.J. Katsko **CHANGE OF CARTOGRAPHIC IMAGE ROLE AND FUNCTIONS UNDER MODERN CONDITIONS OF SOCIETY COMPUTERIZATION** (Russia)
4. A. Wolodtschenko, A. Cesnulevicius, A. Pilipaitis, G. Beconyte **VILNIUS SEMINARS ON CARTOSEMIOTIC: IDEAS, EXPERIENCES AND PERSPECTIVES** (Germany, Lithuania)

August 6th, 12:30 – 14:00 (Room: The main hall)

Poster session 1:

Chairmen: A. Wolodtschenko / A. Gordeyev

1. T. Forner, A. Wolodtschenko **CONCEPTION OF THE POCKET-ATLAS: PREHISTORIC MAPS IN EUROPEAN MUSEUMS** (Germany)
2. E.A. Kravets **CARTOGRAPHIC RESEARCH APPLICATION FOR ENVIRONMENT CONDITIONS FORMING MODERNIZATION SYSTEM** (Russia)
3. J. T. Bjørke, K. Sæheim **INVESTIGATION OF THE CHANNEL CAPACITY OF MAPS WITH COLOURED HEIGHT INTERVALS** (Norway)
4. G. Lizhen **EMPIRICAL ANALYSES OF DESIGN PRINCIPLES FOR CLASSED AND UNCLASSED POINT SYMBOLS** (China)
5. L. Li, Y. Shu **AUTOMATED CARTOGRAPHIC TEXT PLACEMENT** (China)
6. F.Ch. Hruby **A CARTOGRAPHICAL IMPERATIVE IN THE AGE OF CYBERCARTOGRAPHY – A SEMIOTIC RATIONALE OF CARTOGRAPHIC VISUALIZATION UNDER THE MAXIM OF A PROTOTYPICAL USER** (Austria)
7. N. Polyakova **SEMANTIC STRUCTURE OF THE TYPICAL THEMATIC MAP CONTENTS IN THE GEOINFORMATIONAL MAPPING** (Ukraine)

August 6th, 15:00 – 16:30 (Room: Galaxy 3)

Oral session 3-1: Interdisciplinary Methods

Chairmen: L. Brodersen / G. Andrienko

1. Sh. Wang, Zh. Wang, Q. Du **A MEASURE METHOD OF METRIC INFORMATION CONSIDERING MULTI-LEVEL MAP FEATURE** (China)
2. B.P. Battenfield, C. Frye **RE-THINKING BEST PRACTICES IN CARTOGRAPHIC DATA CAPTURE AND DATA MODELING** (USA)
3. I. Drecki **GEOGRAPHICAL INFORMATION UNCERTAINTY: THE CONCEPT AND REPRESENTATIONAL CHALLENGES** (New Zealand)

August 6th, 17:00 – 18:30 (Room: Galaxy 3)

Oral session 3-2: Interdisciplinary Methods

Chairmen: G. Andrienko / Q. Du

1. Y. Cai, Q. Guo **RESEARCH ON MAP GENERALIZATION BASED ON RULES AND NEURAL NETWORK** (China)
2. R.B. McMaster, S.A. McMaster, S. Manson, R. Skaggs **PROFESSIONAL GIS EDUCATION IN THE UNITED STATES: MODELS OF ACCESS AND DELIVERY** (USA)
3. Zh. Wang, L.X. Li, Z.H. Wu, J. Xiao **POINT CLUSTER GENERALIZATION EVALUATION: AN INFORMATION THEORETIC APPROACH** (China)

August 7th, 10:30 – 12:00 (Room: Galaxy 3)

Oral session 3-3: Interdisciplinary Methods

Chairmen: A. Berlyant / N. Komedchikov

1. E.A. Brovko, S.A. Efimov **DEVELOPMENT OF THE CARTOGRAPHIC METHOD OF GEOSPATIAL OBJECT DYNAMICS STUDYING IN SPACE TOPOGRAPHIC MONITORING SYSTEM** (Russia)
2. G. Wan, J. Gao, W. Dong, Y. Liu **COGNITIVE MAP FORMATION IN MAP SPACE COGNITION** (China)
3. F. Jia, G. Song, X. You **COMMUNICATION MODEL OF CARTOGRAPHIC INFORMATION IN DIGITAL CONDITION** (China)
4. Y. Lin, Y. Chen **IMPROVING USABILITY OF CARTOGRAPHIC INFORMATION SYSTEM THROUGH HUMANIS COGNITIVE RULES** (China)

August 7th, 12:30 – 14:00 (Room: Galaxy 3)

Oral session 3-4: Interdisciplinary Methods

Chairmen: G. Beconyte / A. Wolodtschenko

1. R. Inoue, M. Wako, E. Shimizu **A NEW MAP TRANSFORMATION METHOD FOR HIGHLY DEFORMED MAPS BY CREATING HOMEOMORPHIC TRIANGULATED IRREGULAR NETWORK** (Japan)
2. E. Heere **USERS OF OLD MAPS: RESEARCH TO COGNITIVE ASPECTS OF THE USE OF OLD MAPS** (Netherlands)
3. G. Wan, J. Gao, W. Dong, Y. Liu **THE CONSTRUCTION OF EVALUATION FRAMEWORK FOR VIRTUAL GEOGRAPHIC ENVIRONMENT** (China)
4. E.L. Usery, M.P. Finn **CARTOGRAPHIC RESEARCH AT THE U.S. GEOLOGICAL SURVEY CENTER OF EXCELLENCE FOR GEOSPATIAL INFORMATION SCIENCE** (USA)

August 7th, 15:00 – 16:30 (Room: The main hall)

Poster session 2:

Chairmen: K. Kelgenbaeva / P.M.L. Menezes

1. S.P. Nefedov, T.A. Khlebnikova **PROCESSING TECHNIQUES OF CONSTRUCTING AND UPDATING UNIFIED GEOINFORMATIONAL SPACE** (Russia)

2. K. Kelgenbaeva, A. Wolodtschenko **NATURE MAP CARTOSEMIOTIC ANALYSIS OF THE KYRGYZSTAN NATIONAL ATLAS** (Kyrgyzstan, Germany)
3. A. Gordyeyev, A. Wolodtschenko **CARTOSIGMATIC ANALYSIS OF ATLASES** (Ukraine, Germany)
4. A.P. Tereneva, I.G. Nejfeld **USING SATELLITE IMAGES FOR UPDATING LAND - INFORMATION SYSTEMS AND THEMATIC LAYERS' CREATION** (Russia)
5. C.R.F. Vianna, P.M.L. Menezes **THE INFOGRAPHIC AND THE MAP: WHAT ARE THE DIFFERENCES?** (Brazil)
6. N.F. Vasilkova **SIMBOL IMAGE PROBLEMS IN AUTOMATED MAP COMPILATION AND UPDATING DIGITAL TOPOGRAPHIC MAPS** (Russia)
7. L.A. Romashova **PRINCIPLES AND METHODS OF ENVIRONMENT ECOLOGIC-HYGIENIC MAPS COMPILATING** (Russia)
8. G. Song **THEORETICAL RESEARCH FRAMEWORK OF GEOGRAPHICAL INFORMATION SHARING** (China)
9. E.V. Komissarova **MULTIMEDIA AND THE THEORY OF CARTOGRAPHIC IMAGE DEVELOPMENT** (Russia)
10. A.P. Karpik, A.P. Materuk **THE PROBLEMS OF GEOINFORMATION AND CARTOGRAPHIC MODELLING OPERATORS INTEGRATION** (Russia)

August 8th, 12:30 – 14:00 (Room: The main hall)

Poster session 3:

Chairmen: V. Pisarev / E. Krzywicka-Blum

1. J.P. Schroeder **TRENDS IN PATTERNS VERSUS PATTERNS IN TRENDS: A KEY DISTINCTION FOR VISUALIZING GEOGRAPHIC TIME-SERIES DATA** (USA)
2. K. Lucjan **THE ISSUE OF INTERACTIVITY IN COGNITIVE RESEARCH ON RELATIVE ADVANTAGES OF ANIMATED AND STATIC MAPS** (Poland)
3. E. Krzywicka-Blum, H. Klimczak **TAXONOMICAL AND CARTOGRAPHICAL METHODS IN THE ANALYSIS OF SPATIAL DISTRIBUTION OF VARIOUS LEVELS OF AGRICULTURAL USABILITY** (Poland)
4. S. Li, Y. Zheng, G. Li, X. Dai **STUDY ON ZHENG-HE NAUTICAL CHARTS** (China)
5. Y.F. Chen, Y. Ling **DESIGN AND IMPLEMENTATION OF MULTI-STYLE GUI FOR CARTOGRAPHIC INFORMATION SYSTEMS** (China)
6. A.M. Leonowicz **ONE-VARIABLE AND TWO-VARIABLE CHOROPLETH MAPS: AN EXPERIMENTAL RESEARCH** (Poland)
7. A.P. Pucher, S.N. Niederer **ZERO-M - CARTOGRAPHIC DECISION SUPPORT FOR THE DESIGN OF "ZERO OUTFLOW MUNICIPALITIES"** (Austria)

August 8th, 15:00 – 16:30 (Room: Galaxy 3)

Oral session 4: Glossaries and Terminological Aspects

Chairmen: H. Kremers / I. Rotanova

1. H. Schlichtmann, A. Wolodtschenko **PRESENTATION OF A CARTOSEMIOTIC GLOSSARY** (Canada, Germany)
2. Z. Zhou, H. Liu, S.M. Li, J. Xiao **MODERN CARTOGRAPHIC LANGUAGE** (China)
3. H. Moellering **EXPANDING THE ICA CONCEPTUAL DEFINITION OF A MAP** (USA)
4. A.Yu. Materuk **PLAN OF GIS ELEMENTARY OBJECTIVE PROPERTIES CROSS DICTIONARY AND CARTOGRAPHIC MODELLING** (Russia)

August 8th, 17:00 – 18:30 (Room: Galaxy 3)

Oral session 5: Applied-Cartosemiotic Aspects

Chairmen: A. Wolodtschenko / A. Gordyeyev

1. S. Zheng, Y.F. Chen, C. Yang **THE NEW DESIGN METHODS OF MULTIMEDIA ELECTRONIC ATLAS INTERFACE BASED ON THE LOGICAL THEORIES** (China)
2. I.N. Rotanova, A. Wolodtschenko **CARTOSEMIOTIC ANALYSIS OF BARNAUL CITY ATLAS** (Russia, Germany)
3. I. Iosifescu Enescu, L. Hurni **TOWARDS CARTOGRAPHIC ONTOLOGIES OR “HOW COMPUTERS LEARN CARTOGRAPHY”** (Switzerland)
4. F. Ren, Q. Du, X. Wu **STUDY ON CONVERSION FROM SPATIAL INFORMATION TO NATURAL LANGUAGE** (China)

2. MAP PROJECTIONS

Chair: Daan Strebe

Vice-chair: Frank Canters

August 6th, 12:30 - 14:00 (Room: Evening Space 1)

COMMISSION MEETING

August 5th, 17:00 – 18:30 (Room: Galaxy 4)

Oral session 1: Coordinate transformation

Chairmen: F. Canters / M. Baranova

1. K. Engsager **A HIGHLY ACCURATE WORLD WIDE PROJECTION ALGORITHM FOR UTM** (Denmark)
2. K. Engsager **A HIGHLY ACCURATE WORLD WIDE PROJECTION ALGORITHM FOR TRANSVERSE MERCATOR** (Denmark)
3. M.E. Fleis, M.M. Borisov, M.V. Alexandrovich **GEOINFORMATION TECHNOLOGIES AND MAP PROJECTIONS OF THE RUSSIAN EMPIRE, THE SOVIET UNION, AND THE RUSSIAN FEDERATION** (Russia)
4. G.O. Alvarez **UNDERLYING IMPORTANCE OF REFERENCE SYSTEMS IN HYDROCARBON EXPLORATION AND PRODUCTION** (Argentina)
5. M.V. Nyrtsov, L.M. Bugaevsky, P.J. Stooke **THE MULTIPLE AXIS ELLIPSOIDS AS REFERENCE SURFACES FOR MAPPING SMALL CELESTIAL BODIES** (Russia)

August 6th, 15:00 – 16:30 (Room: Galaxy 4)

Oral session 2: Map projection distortion

Chairmen: D. Strebe / K. Engsager

1. F. Canters **LOW-ERROR MAP PROJECTIONS FOR PAN-EUROPEAN STATISTICAL MAPPING** (Belgium)
2. M. Baranova **MATHEMATICAL METHODS IN GEOMATICS – EULER-URMAJEV SYSTEM OF EQUATIONS** (Czech Republic)
3. P. Pedzich, J. Balcerzak **THE METHODS OF CALCULATION OF ELLIPSOIDAL POLYGONS AREAS BASED ON SOME MAP PROJECTIONS PROPERTIES** (Poland)
4. I.O. Bildirici, C. Ipbuker **AN ANALYTICAL APPROACH TO THE DISTORTION CHARACTERISTICS OF GINZBURG’S POLYCONIC PROJECTONS** (Turkey)

August 6th, 17:00 – 18:30 (Room: Galaxy 4)

Poster session:

Chairmen: M. Baranova / I.G. Plachinta

1. I. G. Plachinta **MATHEMATICAL CARTOGRAPHY** (Kazakhstan)

2. S. Li, Y. Zheng, W. Huang, G. Li, X. Dai **STUDY ON THE METHODS OF AUTOMATIC CONSTRUCTING OF CHART MATHEMATICAL FOUNDATION** (China)
3. P. Pedzich, M. Stankiewicz, J. Balcerzak **THE EVOLUTION OF THE MATHEMATICAL BASES OF THE POLISH TOPOGRAPHIC MAPS DURING RECENT 80 YEARS** (Poland)
4. P. Dong Thi Bich **APPLICATION OF ITERATION METHODS FOR INVERSE COORDINATE TRANSFORMATION** (Vietnam, Russia)
5. K. Engsgaard **WHICH ACCURACY DO WE NEED IN GIS** (Denmark)
6. M. Ben Salem **NEW MAPPING PERFORMANCES AND LOCAL SPACE TRANSFORMATIONS: THE CASE OF EL ALIA, TUNISIA** (Tunisia)

3. MAP DESIGN AND PRODUCTION

Co-chairs: Tamara Verestchaka, Kira Shingareva

August 9th, 12:30 - 14:00 (Room: Evening Space 2)

COMMISSION MEETING

August 5th, 15:00 – 16:30 (Room: Galaxy 5)

Oral session 1-1: Design and quality

Chairmen: M. Tomaszewska / E. Komissarova

1. M. Tomaszewska **DATA NATURE AND EFFICIENCY OF CHOROPLETH MAPS** (Poland)
2. J. McKendry, G. Machlis **EVALUATING THE CARTOGRAPHIC DESIGN AND QUALITY OF CLIMATE CHANGE MAPS** (USA)
3. N. Karanikolas, T. Papadakis, M. Skaltsounakis **THE "CARTOGRAMMIC IMAGE" OF A WORLD IN "TRANSITION"** (Greece)
4. A.J. Kent **AN ANALYSIS OF STYLISTIC DIVERSITY IN EUROPEAN STATE 1:50 000 TOPOGRAPHIC MAPS** (United Kingdom)
5. E.L. Kasyanova, J.G. Poshivajlo, D.V. Dmitriev **MAPS AND ATLASES OF NOVOSIBIRSK CITY AND NOVOSIBIRSK AREA** (Russia)

August 5th, 17:00 – 18:30 (Room: Galaxy 5)

Oral session 1-2: Design and quality

Chairmen: E. Buard / E. Podolskaya

1. H. Wang, Y. Chen **RESEARCH ON LEGEND DESIGN FOR ELECTRONIC MAP** (China)
2. C. Xie, Y. Chen **RESEARCH ON THE MATCHING COLOR OF WEB MAPS** (China)
3. G. Metternicht, J. Goetting **TOWARDS A STANDARDISED APPROACH FOR THE SELECTION OF COLOURS IN SOIL MAPS BASED ON THEIR TEXTURAL COMPOSITION AND ROCK FRAGMENT ABUNDANCE: AN IMPLEMENTATION WITHIN MACROMEDIA FREEHAND** (Australia, Germany)
4. E. Buard, A. Ruas **EVALUATION OF COLOUR CONTRASTS BY MEANS OF EXPERT KNOWLEDGE FOR ON-DEMAND MAPPING** (France)
5. Z. He, X. Sun, X. Wei **RESEARCH ON COLOR RELIEF SHADING MAPPING BASED ON DEM** (China)

August 6th, 15:00 – 16:30 (Room: Galaxy 5)

Oral session 2: Symbolization

Chairmen: E. Buard / T.V. Verestchaka

1. J. Xiao, H. Liu **RESEARCH ON SYMBOLIZATION OF TOPOGRAPHIC MAP** (China)
2. St. Anguesser **CARTOGRAPHICAL ICONS FROM A CROSS-CULTURAL PERSPECTIVE** (Germany)
3. Y.L. Liu, Z.Q. Ren, Y.F. Liu **THE IMPLEMENTATION OF UNIFORM SYMBOLIZATION BASED ON ARCGIS** (China)

August 6th, 17:00 – 18:30 (Room: Galaxy 5)

Oral session 3: Toponymics

Chairmen: G. Andrienko / M. Fleis

1. F. Ormeling **THE EUROGEONAMES PROJECT: DEVELOPING A EUROPEAN GEOGRAPHICAL NAMES INFRASTRUCTURE AND SERVICES** (Netherlands)
2. A. Guszlev, L. Lukacs, J.J. Reyes Nunez **DATABASE OF HUNGARIAN GEOGRAPHICAL NAMES** (Hungary)
3. M. Zych **GEOGRAPHICAL NAMES IN MINORITY LANGUAGES ON MAPS** (Poland)
4. M.T. Garrido, B. Risquete, C. Torrecillas **GENERATION OF A TOPONYMS GEODATABASE OF ANDALUSIA IN THE INSTITUTE OF CARTOGRAPHY OF ANDALUSIA (SOUTH OF SPAIN)** (Spain)
5. Z. Stachon **USABILITY OF AUTOMATED GEOGRAPHICAL NAMES PLACEMENT** (Czech Republic)
6. Yu. Artemyev **THE PROBLEMS OF TOPONIMICS IN CARTOGRAPHY** (Russia)

August 8th, 10:30 – 12:00 (Room: Galaxy 5)

Oral session 4-1: Map production

Chairmen: G. Ditz / V.E. Zhukovskiy

1. J. Feranec, J. Pravda **MAP PRESENTATIONS OF THE PAN-EUROPEAN CORINE AND GMES PROGRAMME RESULTS** (Slovakia)
2. R. Ditz **SATELLITE IMAGE MAPS FOR THE AUSTRIAN ARMED FORCES – DESIGN, PRODUCTION AND SOME EDITORIAL AND TECHNICAL PROBLEMS** (Austria)
3. J. Gonzalez-Matesanz, L. Garcia-Asensio, J. Celada-Perez, G. Martin-Asin **CARTOGRAPHIC PRODUCTION BY GIS TECHNOLOGY IN THE NATIONAL GEOGRAPHIC INSTITUTE OF SPAIN, APROACHING STANDARDS AND INSPIRE PRINCIPLES** (Spain)
4. H.P. Dalkiran, O. Simav, M. Ustun **BUILDING A CARTOGRAPHIC QUALITY CONTROL SYSTEM ON TOPOGRAPHIC MAP PRODUCTION** (Turkey)
5. F. Davidsson, D. Sherrill, O. Berg **DATA BASE CENTRIC WORK PROCESSES** (Sweden)

August 8th, 12:30 – 14:00 (Room: Galaxy 5)

Oral session 4-2: Map production

Chairmen: O. Simav / A.V. Chernyshev

1. V.V. Gorjachko, A.V. Chernyshev **SOME ASPECTS OF CARTOGRAPHIC MULTIMEDIA CREATION** (Russia)
2. Z.L. Cai, G. Cheng, Q. Du **SELF-ADAPTIVE VISUALIZATION STRATEGY IN HYPERMEDIA ELECTRONIC MAP** (China)
3. O. Simav, H.P. Dalkiran, M. Ustun **GENERIC MAP PRODUCTION IN A CARTOGRAPHIC PERSPECTIVE** (Turkey)

4. I. Vilus, I. Landek, Z. Zeleznjak **CROTIS AND VOGIS – CROATIAN CONCEPT OF COOPERATIVE MAP PRODUCTION** (Croatia)

August 8th, 12:30 – 14:00 (Room: Galaxy 5)

Poster session:

Chairmen: O. Simav / A.V. Chernyshev

1. P. Kete **MAPS AND DATA FOR AIR, SEA AND LAND NAVIGATION – DIFFERENCES AND SIMILARITIES** (Slovenia)
2. F.A. Oliveira **INFLUENCE OF DATA AND INTERPOLATOR SELECTION FOR MAPPING THE RAIN DISTRIBUTION PATTERN IN THE BABITONGA BAY REGION, SOUTHERN BRAZIL** (Brazil)
3. S. Franges, V. Posloncec-Petric, R. Zupan **CONTINUOUS DEVELOPMENT OF CARTOGRAPHIC VISUALISATION** (Croatia)

4. EDUCATION AND TRAINING IN CARTOGRAPHY, INTERNET COURSES

Chair: Laszlo Zentai

Vice-chair: David Fraser

August 7th, 12:30 - 14:00 (Room: Evening Space 2)

COMMISSION MEETING

August 7th, 10:30 – 12:00 (Room: Galaxy 5)

Oral session 1: Teaching cartography

Chairmen: R. Peres / A.M. Berlyant

1. A.M. Berlyant **CARTOGRAPHY AS A GEOSCIENTIFIC FIELD OF KNOWLEDGE** (Russia)
2. D.D. Fraser **TEACHING CARTOGRAPHIC UNCERTAINTY** (Australia)
3. Ph. De Maeyer, T. Ongena, L. Vansteenvoort **TEACHING CARTOGRAPHY USING DIAGRAMS: CONCEPT MAPS** (Belgium)
4. S. Li, Y. Zheng, H. Chen, X. Dai **STUDY ON THE TRAINING OF INTERNATIONAL NAUTICAL CARTOGRAPHERS** (China)

August 7th, 12:30 – 14:00 (Room: The main hall)

Poster session:

Chairmen: R. Rodriguez-Gonzalez / I.V. Kiseliev

1. J.A.A. Vazquez, R. Rodriguez-Gonzalez **THE GEOGRAPHY INFORMATION SYSTEM IN THE UNIVERSITY AND POST-UNIVERSITY FIELDS IN SPAIN. A DIDACTIC FOR TEACHING IT** (Spain)
2. B.R. Acharya, K. Sharma **VOICE FOR GEOMATICS MARKETING** (Nepal)
3. G. Li, S. Li, G. Cui, R. Peng, Y. Zheng, Z. Tian, J. Zhao **RESEARCH ON THE PROFESSIONAL CULTIVATING OF GIS** (China)

August 8th, 15:00 – 16:30 (Room: Galaxy 5)

Oral session 2: e-Learning

Chairmen: A.M. Berlyant / M. Murad-al-Shaikh

1. C.A. Blok **SHARING E-COURSES IN GI SCIENCE WITH EUROPEAN PARTNERS: EXPERIENCES WITH A GEODATA VISUALIZATION COURSE** (Netherlands)
2. C. Lienert, L. Hurni **DISSEMINATION OF CARTOGRAPHIC CONCEPTS AND TOOLS IN NATURAL HAZARD AND RISK MANAGEMENT BY NOVEL E-LEARNING METHODS** (Switzerland)

3. O. Schnabel, R. Stopper, L. Hurni **NEW MODULAR APPROACH FOR KNOWLEDGE-TRANSFER IN MULTIMEDIA CARTOGRAPHY: THE E-LEARNING PROJECT CARTOUCHE** (Switzerland)
4. A. Guszlev, L. Zentai **COLLABORATIVE CURRICULUM DEVELOPMENT IN WEBMAPPING** (Hungary)

August 8th, 17:00 – 18:30 (Room: Galaxy 5)

Oral session 3: Support material and insight

Chairmen: C. Blok / L. Hurni

1. O. Cerba, M. Baranova **ONLINE TUTORIAL MATERIALS & DOCBOOK** (Czech Republic)
2. D. DiBiase **INTRODUCING THE FIRST EDITION OF THE GIS&T BODY OF KNOWLEDGE** (USA)
3. G. Gartner, M.P. Peterson **EXPERIENCES FROM HANDS-ON WEBMAPPING WORKSHOPS OF THE ICA COMMISSION ON MAPS AN THE INTERNET** (Austria, USA)
4. M. Murad-al-Shaikh **CHALLENGES IN CARTOGRAPHIC TRAINING** (USA)

August 9th, 10:30 – 12:00 (Room: Galaxy 5)

Oral session 4: Miscellaneous (atlas, encyclopaedia, theory)

Chairmen: L. Zentai / D.V.Lisitsky

1. P. Carballo Cruz, M.J. Iniesto Alba **THE DIGITAL ATLAS OF GALICIAN IN SURVEYING ENGINEERING EDUCATION** (Spain)
2. Ph. De Maeyer, J. Verbeken, M. Brondeel, L. Vansteenvoort, T. Ongena **ONLINE GIS AND GEOMATICS ENCYCLOPEDIA IN SUPPORT OF CARTOGRAPHIC EDUCATION** (Belgium)
3. J.P. Nghonda, S. Zacharie **LA PROBLEMATIQUE DE LA CARTOGRAPHIE COMME DISCIPLINE ACADEMIQUE ET SUPPORT DIDACTIQUE AU CAMEROUN** (Cameroon)
4. A.P. Karpik, D.V. Lisitsky, E.V. Komissarova, E.S. Utrobina, V.S. Pisarev **NEW METHODS IN DOMESTIC CARTOGRAPHIC AND GEODETIC TRAINING** (Russia)

August 9th, 12:30 – 14:00 (Room: Galaxy 5)

Oral session 5: Web-based materials

Chairmen: D. Fraser / D.V. Lisitsky

1. L. Zentai **APPLICATION OF WEB 2.0 IN CARTOGRAPHIC EDUCATION: IS IT TIME FOR CARTOGRAPHY 2.0?** (Hungary)
2. J. Nikander, K. Virrantaus **LEARNING ENVIRONMENT ON SPATIAL DATA ALGORITHMS** (Finland)
3. N.J. Bakker **EDUGIS, WEBGIS FOR SECONDARY SCHOOLS** (Netherlands)
4. J.-A. Schwarz, H. Asche **WEB BASED TRAINING UNITS IN GI SCIENCE: APPLYING THE POTENTIAL OF NEW MEDIA TO CLASS AND SELF TEACHING OF GEOINFORMATION CONCEPTS AND APPLICATIONS** (Germany)

5. DIGITAL CARTOGRAPHY AND GIS FOR SUSTAINABLE DEVELOPMENT

Chair: Vladimir S. Tikunov

August 9th, 12:30 - 14:00 (Room: Evening Space 1)

COMMISSION MEETING

August 5th, 15:00 – 16:30 (Room: Galaxy 1)

Oral session 1: Sustainable development, ecology and inequity struggle

Chairmen: V.S. Tikunov / Ramón M. Lorenzo

1. V.S. Tikunov, T.S. Nokelaynen, I.N. Rubanov **ATLAS INFORMATION SYSTEM FOR SUSTAINABLE DEVELOPMENT OF TERRITORIES** (Russia)
2. De. Liu, Y. Liu, W. Ma **ANALYSIS OF SOCIAL SPATIAL STRUCTURE OF POOR POPULATION** (China)
3. N.S. Kasimov, T.V. Kotova, V.S. Tikunov, V.A. Dikunets, V.N. Makeev, N.N. Moskvina **ATLAS OF THE KHANTY-MANSI AUTONOMOUS OKRUG-YUGRA: PRESENT-DAY SOCIETY, ECONOMY, NATURE AND ENVIRONMENT** (Russia)
4. H.M. Roos **USING GIS AND CARTOGRAPHIC TECHNOLOGIES TO EFFICIENTLY MANAGE ENVIRONMENTAL DATA IN THE COUNCIL FOR GEOSCIENCE, SOUTH AFRICA** (South Africa)
5. T.M. Krasovskaya, O.I. Kotova, V.S. Tikunov **SMALL SCALE MAPPING OF CULTURAL LANDSCAPES** (Russia)

August 5th, 17:00 – 18:30 (Room: Galaxy 1)

Oral session 2-1: GIS for monitoring of natural and artificial hazards

Chairmen: B. Rystedt / M. Milovanova

1. M. Konecny, T. Reznik **ONTOLOGIES IN RISK MANAGEMENT** (Czech Republic)
2. K. Stanek, M. Konecny, L. Friedmannova **AN ADAPTIVE CARTOGRAPHIC VISUALIZATION FOR SUPPORT OF THE CRISIS MANAGEMENT** (Czech Republic)
3. C. Arrowsmith, J. Cheruseril **AN URBAN WATER CONSUMPTION MODEL FOR METROPOLITAN MELBOURNE** (Australia)
4. A. Koshkarev, A. Kozlova, E. Likhacheva, G. Lokshin, D. Markelov, D. Timofeev, I. Chesnokova **MAPPING METHODS OF REPRESENTING EXTREME PROCESSES** (Russia)
5. R. Perez **WEB BASED GIS SUPPORTING THE ASSESSMENT OF EARTHQUAKE-TRIGGERED LANDSLIDES PROJECTS** (Spain)

August 6th, 12:30 – 14:00 (Room: The main hall)

Poster session 1:

Chairmen: Ramón M. Lorenzo / I.N. Rubanov

1. P.J. Burban **INFORMATION ON TOWN PLANNING ACTIVITY IN THE NOVGOROD AREA IN CASE OF USING THE RUSSIAN FEDERATION TOWN PLANNING CODE** (Russia)
2. N.C. Deng, Y.L. Liu, Y. Liu, W. Liu **BALANCING URBAN DATUM LAND PRICE AMONG CITIES BASED ON GIS PLATFORM** (China)
3. D.N. Timerkaeva **CARTOGRAPHIC PROVISION FOR THE FULFILMENT OF THE FEDERAL LAW «ABOUT GENERAL PRINCIPLES OF LOCAL GOVERNMENT ORGANIZATION IN THE RUSSIAN FEDERATION»** (Russia)
4. K.S. Ganzej **LANDSCAPE MAPPING OF KURIL ISLANDS** (Russia)
5. A. Hermosilla Carrasquilla, V. Corral Pinel, C. Gonzalez Fernandez Nieto, J.A. Suarez Lopez **ANDALUSIAN MTA10 DATA MODEL** (Spain)
6. N. Valcarcel, A. Arozarena, L. Garcia-Asensio, G. Villa, J.J. Peces, E. Domenech, A. Porcuna **NEW CONCEPT ON LAND COVER / LAND USE INFORMATION SYSTEM IN SPAIN. DESIGN AND PRODUCTION** (Spain)

August 6th, 15:00 – 16:30 (Room: The main hall)

Poster session 2:

Chairmen: M.A. Shakramanian / I.N. Rubanov

1. H. Huang, H. Liu **TOPOLOGICAL CONSISTENCY OF COMPLICATED OBJECT ON MAP DATA** (China)
2. N.J. Bakker **TOPONL AS BASIC REGISTER TOPOGRAPHY** (Netherlands)
3. P.C. Papatheodorou, S.E. Stefanidou, K.A. Constantinidis, L.E. Lekkas, F.D. Foutakiss **THEMATIC MAPS AND GIS TECHNIQUES IN LANDSLIDE HAZARD MITIGATION. A CASE STUDY IN THIRA ISLAND (GREECE)** (Greece)
4. F. Gulgen, T. Gokgoz **COMPARASION OF DRAINAGE NETWORKS EXTRACTED FROM DEMS AUTOMATICALLY USING ACCUMULATION VALUES AND PPA** (Turkey)
5. D. Svobodova **THE FUNDAMENTAL BASE OF GEOGRAPHIC DATA OF THE CZECH REPUBLIC (ZABAGED)-NEW TECHNOLOGY AND NEW POSSIBILITIES** (Czech Republic)
6. M.C. Cekule, I.G. Gailisa, G.B. Bicevska **USE OF GIS FOR MODELLING OF RIGA CITY TERRITORY DEVELOPMENT** (Latvia)
7. D. Divjak, I. Landek, I. Vilus **CROTIS 1.2 – A STEP FORWARD** (Croatia)

August 7th, 12:30 – 14:00 (Room: The main hall)

Poster session 3:

Chairmen: D. Fairbairn / A. Karpik

1. S.S. Karpuhin **THE EARTH REMOTE SENSING AND GEOINFORMATION MAPPING BASED TECHNOLOGIES FOR CREATING THE RUSSIAN FEDERATION GEOINFORMATION SPACE** (Russia)
2. H. Kumke **VISUALIZATION OF BUILDING MODELS AND FACTUAL DATA INTEGRATED BY CITYGML** (Germany)
3. R. Liu, Y. Jia, X. Zhou, J. Jiang, W. Zhang **THE CHARACTERISTICS OF NFGIS DATA PRODUCTS AND SERVICES** (China)
4. H. Klimczak, K. Galant **THE ANALYSIS OF THE LAYOUT OF THE AREAL PHENOMENA USING THE IMAGE ANALYSIS** (Poland)
5. H.R. Barcus, B. Muehlenhaus **BRIDGING THE ACADEMIC-PUBLIC DIVIDE IN GIS AND CARTOGRAPHY: A MODEL FOR INTEGRATING COMMUNITY PARTNERSHIPS IN THE CLASSROOM** (USA)
6. I.A. Sokolov, V.N. Filatov, N.I. Konon, A.I. Martynenko **THE MAJOR PROBLEMS OF GEOINFORMATICS AND CARTOGRAPHY** (Russia)
7. A.L. Sinitsyna **THE DEVELOPMENT OF GIS SEPARATE ELEMENTS FOR THE MEGACITY ROADS AND TRANSPORT COMPLEX (CASE STUDY MOSCOW)** (Russia)

August 7th, 15:00 – 16:30 (Room: Galaxy 1)

Oral session 2-2: GIS for monitoring of natural and artificial hazards

Chairmen: D. Fairbairn / S.V. Serebryakov

1. M.A. Vodov, G.G. Pukhov **GIS FOR SAINT-PETERSBURG SITUATIONAL CENTER** (Russia)
2. A.I. Kozlov, V.G. Kobernichenko, S.V. Serebryakov, V.V. Gusev **GIS FOR THE TERRITORIAL CENTERS OF MONITORING** (Russia)
3. A. Hopfstock **A COMPARATIVE STUDY OF EUROPEAN TOPOGRAPHIC MAPS AT SCALE 1:250.000** (Germany)
4. I. Kovalchuk, Y. Ivanov, J. Andreychuk **USING OF GIS APPROACH IN THE REALIZATION OF BASIC PRINCIPLE IN RESOURCE MANAGEMENT** (Ukraine)

5. E.A. Belonovskaya, D.S. Asoyan **REMOTE SENSING APPROACH FOR THE THEMATIC MAPPING AND PHYSICAL-GEOGRAPHIC REGIONALIZATION OF NORTH CAUCASUS** (Russia)

August 7th, 17:00 – 18:30 (Room: Galaxy 1)

Oral session 3: GIS for resources and data management

Chairmen: H. Nyapola / I.N. Rubanov

1. O.A. Carvalho Junior, R.F. Guimaraes, L.F. Freitas, R.A.T. Gomes, D. Gomes-Loebmann, E.S. Martins, A.P.F. Carvalho **CARTOGRAPHIC APPROACH USING GIS TO IDENTIFY APPROPRIATE SITES FOR SMALL HYDROPOWER SYSTEMS INSTALLATION: APPLICATION TO PRETO RIVER BASIN, CENTRAL BRAZIL** (Brazil)
2. R.B. Prado, V.M. Benites, A. Naumov, C.C. Evangelista de Menezes, C.E. Gonzalves Ferreira **MAPPING SPATIAL AND TEMPORAL POTASSIUM VARIABILITY TO OPTIMIZE THE AGRICULTURAL FERTILIZERS APPLICATION IN THE SW GOIAS – BRAZIL** (Brazil)
3. T. V. Vereshchaka, I.E. Kurbatova **MAPPING OF THE SYSTEM CATCHMENT BASIN – WATER BODY FOR SOLVING PROBLEMS OF NATURE MANAGEMENT** (Russia)
4. E.B. Bielecka **MAPPING LANDSCAPE DIVERSITY ON THE BASIS OF LAND COVER DATA** (Poland)
5. A.C. Aydinoglu, T. Yomralioglu **MANAGING TOURISM SERVICES OF EAST BLACK SEA REGION OF TURKEY WITH MAPS** (Turkey)

6. GEOGRAPHICAL INFORMATION SYSTEMS

Chair: Vladimir S. Tikunov

Vice-Chair: Kirsi Virrantaus

August 7th, 10:30 – 12:00 (Room: Galaxy 1)

Oral session 1: Decision-Support Systems. Human-Computer Interactions

Chairmen: K. Virrantaus / A. Karpik

1. R. Zhao **DEVELOPMENT AND APPLICATION OF SPATIO-TEMPORAL DATA MANAGEMENT SYSTEM** (China)
2. A. Torun, S. Duzgun **REVEALING SPATIAL PATTERNS THROUGH SPATIAL DATA MINING AND VISUAL EXPLORATION IN TEMPORAL DATA** (Turkey)
3. M. Weng, Q. Rong, D. Qingyun **USING KNOWLEDGE ABOUT THE COGNITIVE SPACE OF TRANSPORTATION NETWORKS FOR WAYFINDING** (China)
4. H. Seppanen, J. Krisp, K. Virrantaus **EXPANDING THE SITUATION PICTURE FOR THE DECISION MAKER WITH GEOGRAPHIC INFORMATION** (Finland)
5. M. Mueller, D. Dransch, M. Wnuk **SPATIAL GRAPHICAL USER INTERFACES (GUI) FOR COMPLEX DECISION SUPPORT IN TIME-CRITICAL SITUATIONS** (Germany)

August 7th, 12:30 – 14:00 (Room: Galaxy 1)

Oral session 2: WEB-GIS and e-government

Chairmen: V.A. Malinnikov / W. Cartwright

1. J.P. Liu, Z. Liu, K.W. Tao, Y. Wang **WORKFLOW MANAGEMENT OF E-GOVERNMENT SPATIAL INFORMATION SERVICE** (China)
2. Z. Stachon, J. Kozel, V. Kaplan, T. Reznik **WEB SERVICES IN RISK MANAGEMENT** (Czech Republic)

3. Y. Cheng, Z. Wu, J. Yu, J. Guo **A COMBINED FRAMEWORK OF SPATIO-TEMPORAL DATA ORGANIZATION** (China)
4. R.K. Gareev, B.G. Petrov, G.S. Mavlyautdinova, MG. Faskhutdinov **THE CONCEPTION OF MUNICIPAL FORMATIONS GEOINFORMATION SYSTEMS OF THE REPUBLIC OF TATARSTAN** (Russia)

August 7th, 15:00 – 16:30 (Room: The main hall)

Poster session:

Chairmen: C. Swensson / A. Barladin

1. A. Barladin **USE OF GEOINFORMATION TECHNOLOGIES IN CARTOGRAPHIC PRODUCTION (FROM THE EXPERIENCE OF HIGH TECHNOLOGIES INSTITUTE, KIEV, UKRAINE)** (Ukraine)
2. L. Gang, Z. Rong, L. Ji-ping, Z. Qing-pu **AN ARCOBJECT BASED ANALYSIS OF THE SPATIAL DISTRIBUTE MODEL OF MONTHLY RUNOFF IN CHANGDU SUB-BASIN AT THE LANCANG RIVER BASIN** (China)
3. C. Swensson, A. Herlin **USING GPS AND GIS IN LIVESTOCK PRODUCTION** (Sweden)
4. Yang Liu **THE DESIGN AND IMPLEMENTATION OF LAND RESERVATION AND TRADING SYSTEM BASED ON GIS TECHNOLOGY** (China)
5. M.O. Vall **VERS LA MISE À JOUR CARTOGRAPHIQUE ET CRÉATION DE BASES DE DONNÉES NUMÉRIQUES DE LA MAURITANIE** (Mauritania)

August 8th, 10:30 – 12:00 (Room: Galaxy 1)

Oral session 3-1: Visualization and GIS

Chairmen: G.V. Pozdnjak / H. Hargitai

1. V.A. Malinnikov, M.C. Milovanova **MAP DEVELOPMENT AND CREATION FOR ECOLOGICAL COMPONENT OF GIS ON THE OIL-FIELDS** (Russia)
2. B. Tomaszewski **CARTOGRAPHIC AND VISUAL REPRESENTATION OF SITUATIONAL INFORMATION CREATED THROUGH COMPUTATIONAL EXTRACTION PROCEDURES: FOUNDATIONS FOR AWARENESS** (USA)
3. S.V. Erukov, M.A. Bazina **RESEARCH OF USERS REQUIREMENTS FOR CREATING TOPOGRAPHIC MAP CONTENTS AIMING AT INTERBRANCH GIS CARTOGRAPHIC OPTIMIZATION** (Russia)
4. M.L. Austreng-von Wyl **GIS CARTOGRAPHY AND THE CIRCULAR PROCESS** (Switzerland)
5. E. Tarantino, M. Caprioli, B. Figorito, A. Scognamiglio **THE USE OF MULTIPATCH FOR THE OBJECTS IN 3D DIGITAL CARTOGRAPHY** (Italy)

August 8th, 12:30 – 14:00 (Room: Galaxy 1)

Oral session 3-2: Visualization and GIS

Chairmen: P. M. Pasion / H. Zhu

1. H. Zhu, H. Wang, L. Li **A DIGITAL CARTOGRAPHIC SYSTEM BASED ON FUNDAMENTAL GEOGRAPHIC INFORMATION** (China)
2. C.X. Yu, Y. Zheng, W. Huang **DIGITAL CHART PRODUCTION BY SCANNING DIGITIZING METHOD** (China)
3. L. Xingui, S. Qun, X. Qing, L. Haiyan **LENS TRACING METHOD FOR LINER OBJECTS SKELETON FROM COLORED SCANNING MAP** (China)
4. Ph.D. Carlos Miniano Pascual, P.M. Pasion, C.T. Ragual **MAP ANALYSIS PROGRAM: A CARTOGRAPHIC GIS-BASED MODEL FOR MAPPING PHILIPPINE'S HIGHER EDUCATION INSTITUTIONS AND PROGRAMS** (Philippines)

August 9th, 10:30 – 12:00 (Room: Galaxy 1)

Oral session 4: Geospatial Analysis

Chairmen: Bin Jiang / V. Tikunov

1. M.V. Panasjuk, E.M. Pudovik **CLASSIFICATION APPROACH TO ANALYSIS OF TERRITORIAL SYSTEM STABILITY** (Russia)
2. S. Hongyun, L. Wang, T. Wang, R. Fan **APPLICATION OF GIS IN THE ANALYSIS OF FIELD STRENGTH OF RADIO WAVE PROPAGATION** (China)
3. M.D. Mokhtar Azizi, M.Y. Ahmad, M.Z. Zainal Abiden **INTEGRATION OF GIS AND DIGITAL PHOTOGRAMMETRY IN BUILDING SPACE ANALYSIS** (Malaysia)
4. T. Gokgoz **COMPARING THE APPROACHES FOR OBTAINING TIN FROM ONLY DEM POINTS** (Turkey)
5. J. Jin, L.X. Guo, H.R. Chen **THE INTEGRATIVE EVALUATION OF THE ROAD HINGE IMPORTANCE BASED ON FUZZY MATHEMATICS** (China)

August 9th, 12:30 – 14:00 (Room: Galaxy 1)

Oral session 5: Geospatial Analysis

Chairmen: F.P. Silva / I.P. Karachevtseva

1. X.Y. Liu, H. Zhang, G.N. Lu, A.A. MacEachren **SCENARIO-BASED INTERACTIVE MAP GENERATING PATTERNS -AN APPLICATION IN CRISIS MANAGEMENT** (China)
2. T. Reznik, J. Kozel, V. Kaplan, Z. Stachon **PRACTICAL RISK MANAGEMENT ONLINE** (Czech Republic)
3. F. Pino Silva **USE OF GEOGRAPHICAL INFORMATION SYSTEMS (GIS) IN THE EVALUATION OF DYNAMICS AND CHANGES IN THE RURAL LANDSCAPE IN CENTRAL CHILE** (Chile)
4. H.S. Sampaio, L.S. Rabelo, J.M.P. Bey **THE MYTHS ABOUT COCO'S ECOLOGICAL PARK CONSERVATION, FORTALEZA, CE, BRAZIL** (Spain)

7. SPATIAL DATA INFRASTRUCTURES (NSDI, GSDI AND SDI), DEVELOPMENT, STANDARDS

Chair: Harold Moellering

Vice-chairs: Jan Hjelmgager (Europe), Antony Cooper (Africa & Middle East), Tatiana Delgado (Central & South America), Abbas Rajabifard (Asia-Pacific, Interim), Milan Konecny (SDI coordinator)

August 9th, 10:30 - 12:00 (Room: Evening Space 2)

COMMISSION MEETING

August 5th, 17:00 – 18:30 (Room: Galaxy 2)

Oral session 1: SDI Ontology, Semantics & Modeling

Chairmen: H. Moellering / R. McMaster

1. L. Blazquez, A. Pascual, J. Rodriguez, M. Poveda **AN APPROACH TOWARDS A HARMONIZED FRAMEWORK FOR HYDROGRAPHIC FEATURES DOMAIN** (Spain)
2. A. Cooper **AN INITIAL MODEL FOR THE COMPUTATION VIEWPOINT OF A SPATIAL DATA INFRASTRUCTURE** (South Africa)
3. D.E. Varanka **ONTOLOGICAL FOUNDATIONS OF TRANSPORTATION DATA FOR THE NATIONAL MAP** (USA)

4. J.Y. Wang, M.G. Wu, Y. Cheng **RESEARCH AND IMPLEMENT OF GEOSPATIAL PORTAL BASED ON GRID AND AGENT** (China)

August 6th, 15:00 – 16:30 (Room: Galaxy 2)

Oral session 2-1: SDI Building

Chairmen: D. Gruenreich / E. Cherepanova

1. S. Balley **DESCRIPTION OF DATA STRUCTURES AND INTEROPERABILITY** (France)
2. D. Gotlib, R. Olszewski, J. Bac-Bronowicz **SYNCHRONISATION OF VARIOUS DATA REGISTERS WITHIN THE CONCEPT OF A MULTI-RESOLUTION TOPOGRAPHIC DATABASE FOR POLAND** (Poland)
3. A. Rajabifard, A. Binns, I. Williamson **SDI DESIGN TO FACILITATE SPATIALLY ENABLED SOCIETY** (Australia)
4. D. Gruenreich **THE ROLE OF CARTOGRAPHY IN THE FRAMEWORK OF GEO-SPATIAL DATA INFRASTRUCTURES** (Germany)

August 6th, 17:00 – 18:30 (Room: Galaxy 2)

Oral session 2-2: SDI Building

Chairmen: D.R.F. Taylor / A. Postnikov

1. W. Paluszynski, A. Iwaniak, A. Sliwinski, T. Kubik **BUILDING SPATIAL DATA INFRASTRUCTURE AT COUNTY LEVEL USING OPEN SOFTWARE** (Poland, Germany)
2. K.J. Wilkinson, H.J. Brynard **IMPLEMENTATION OF A GEOSPATIAL PORTAL AT THE COUNCIL FOR GEOSCIENCE, SOUTH AFRICA** (South Africa)
3. S. Mas-Mayoral, A.F. Rodriguez, P. Abad-Power, A. Sanchez-Maganto, J.A. Alonso-Jimenez **NEW WAYS OF EXPLORING CARTOGRAPHY. DEVELOPMENT OF SPANISH NSDI** (Spain)
5. D.R.F. Taylor **PROGRESS IN THE CREATION OF AN OPERATIONAL GLOBAL SPATIAL DATA INFRASTRUCTURE: THE GLOBAL MAP EXPERIENCE** (Canada)

August 7th, 10:30 – 12:00 (Room: Galaxy 2)

Oral session 3-1: SDI Database Development

Chairmen: A. Cooper / A. Vakhtanov

1. R. Boros, E. Micietova **TOOLS FOR THE HARMONIZATION OF THE GEOGRAPHIC INFORMATION SOURCES IN SPATIAL INFORMATION INFRASTRUCTURES** (Slovakia)
2. J. Bac-Bronowicz, R. Olszewski, T. Berus, A. Kolodziej **SOZO AND HYDRO THEMATIC DATABASES AS A COMPONENT OF NSDI IN POLAND** (Poland)
3. P. Ahonen-Rainio, K. Korhonen **DESIGN ASPECTS OF A THESAURUS FOR THEMATIC SEARCH IN GEOSPATIAL METADATA SERVICES** (Finland)
4. P. Smits, K. Toth **INFRASTRUCTURE FOR SPATIAL INFORMATION IN EUROPE (INSPIRE): FROM CARTOGRAPHY TO SPATIAL OBJECTS AND NETWORK SERVICES** (Italy)
5. I. Racetin, M. Lapaine **CROATIAN TOPOGRAPHIC DATA UPDATING** (Croatia)

August 7th, 12:30 – 14:00 (Room: Galaxy 2)

Oral session 4: SDI Web Services

Chairmen: A. Iwaniak / N. Kotelnikova

1. E. Stefanakis, P. Prastacos **SEMANTIC-BASED SPATIAL INFORMATION INFRASTRUCTURES: INTEGRATING DATA AND SERVICES INTO A SINGLE COLLECTION** (Greece)
2. T. Kubik, W. Paluszynski, B. Kopanczyk, A. Iwaniak **IMPLEMENTING A WPS SERVICE FOR AUTOMATIC FEATURE RECOGNITION IN ORTHOPHOTO MAPS** (Poland)
3. C. Romera, A. del Campo, P. Abad-Power, J.A. Alonso-Jimenez, A.F. Rodriguez **IGN/CNIG CORPORATIVE CARTOGRAPHIC VISUALIZER AS WEB CLIENT OF OGC GEOSPATIAL WEB SERVICES** (Spain)
4. G. Cheng **A PROPOSED FRAMEWORK FOR DATA SHARING: A CASE STUDY FOR USING OGC WEB SERVICE IN LOCATION-BASED SERVICES** (China)

August 7th, 15:00 – 16:30 (Room: The main hall)

Poster session:

Chairmen: S. Mas-Mayoral / A. Vakhtanov

1. G. Li, J. Zhao, Z. Tian, G. Cui, S. Li, Y. Liu **STUDY ON THE SPATIAL DATABASE ACCESSING TECHNOLOGY** (China)
2. Ho. Wang, S. Su, R. Yu **PRELIMINARY STUDY ON TIME SERIES ANALYSIS AND ITS APPLICATION IN GLOBAL MAPPING PROJECT** (China)
3. J.K. Mathenge, B.N. Owino, J. Sato **THE PROJECT FOR STRENGTHENING OF SURVEY OF KENYA FOR GIS PROMOTION IN THE REPUBLIC OF KENYA** (Kenya)
4. M. Barea Solis, M. Redondo, E. Pardo Perez **ANDALUSIAN SDI (IDEANDALUCIA). THE PRESENT AND FUTURE OF A PROJECT** (Spain)
5. A. Arozarena-Villar, L. Garcia-Asensio, G. Guillermo Villa-Alcazar, J. Hermosilla-Cardenas, F. Papi-Montanel, N. Valcarcel-Sanz, J.J. Peces-Morera, E. Domenech-Tofico, C. Garcia-Gonzalez, J.A. Tejeiro-Orellana **SPANISH NATIONAL PLAN FOR OBSERVATION OF TERRITORY (PNOT)** (Spain)

August 8th, 15:00 – 16:30 (Room: Galaxy 2)

Oral session 3-2: SDI Database Development

Chairmen: H. Moellering / S.W. Serebryakov

1. E. Stylianidis, L. Dinakis, N. Karanikolas **A PROTOTYPE SYSTEM FOR HYDROGRAPHIC NETWORK MANAGEMENT USING OPEN SOURCE SPATIAL DATABASES** (Greece)
2. D. Rejkjaer **THE RIPPLE EFFECT A VALUE-BASED APPROACH TO MODIFYING THE CONTENTS IN A GEODATABASE** (Denmark)
3. A.J. Jakobsson, L. Tsoulos **THE ROLE OF QUALITY IN SPATIAL DATA INFRASTRUCTURES** (Finland, Greece)
4. A.C. Aydinoglu, M. Ozendi, T. Yomralioglu **ADMINISTRATIVE UNITS DESIGN IN SUPPORT OF TERRITORIAL DEVELOPMENT IN TURKEY** (Turkey)
5. D.R. Dukaczewski, E. Bielecka, J. Bac-Bronowicz **TOPOGRAPHIC DATABASES OF 10 000 IN EU COUNTRIES COMPARISON OF THE THEMATIC SCOPE** (Poland)

August 8th, 17:00 – 18:30 (Room: Galaxy 2)

Oral session 5: Spatial Database Mapping Systems

Chairmen: S. Mas-Mayoral / N.J. Lebedeva

1. C.J.B. Santos, M.T. Marino, G.R. Moreira, P.M.L. Menezes **THE DATE BASE OF GEOGRAPHICAL NAMES OF BRAZIL – BNGB: BUILDING, PROTOTYPE AND SPREAD PLACE NAMES TO BRAZILIAN SOCIETY** (Brazil)

2. Do. Liu, S. Su **STUDY AND PRACTICE ON NATIONAL MAIN WATER DATA MAKING EACH RIVERS ARCS IDENTICAL ENTITY** (China)
3. S.V. Serebryakov, L.M. Rasskazova, M.V. Klepinina **TECHNOLOGY OF THE GENERAL PLAN CREATION IN THE ELECTRONIC FORM** (Russia)
4. N.J. Lebedeva, E.V. Smirnova **UNIFORM MODEL OF THE ORGANIZATION AND REPRESENTATION OF DIGITAL TOPOGRAPHIC MAPS AND PLANS** (Russia)

8. INCREMENTAL UPDATING AND VERSIONING OF SPATIAL DATA

Co-chairs: Antony Cooper, Ammatzia Peled

August 6th, 15:00 - 16:30 (Room: Evening Space 1)

COMMISSION MEETING

August 6th, 10:30 – 12:00 (Room: Galaxy 2)

Oral session 1: Different scales maps updating

Chairmen: A. Cooper / V. Sedelnikov

1. V.P. Sedelnikov **COMPLEX SPACE TOPOGRAPHIC MONITORING IN SOLVING SPATIAL INFORMATION ACTUALIZATION** (Russia)
2. H.B. Qi, Z.L. Li, J. Chen **AUTOMATED DETECTION OF REAL CHANGES BETWEEN ALREADY-UPDATED LARGER-SCALE MAPS AND TO-BE-UPDATED SMALLER-SCALE MAPS** (Hong Kong, China)
3. L.V. Vorobyova, A.V. Samokhina, J.J. Tezina **UPDATING DIGITAL TOPOGRAPHIC MAPS OF DIFFERENT SCALES ON SPACE IMAGES** (Russia)
4. M. Zhang, L. Meng, H. Qian **A STRUCTURE-ORIENTED MATCHING APPROACH FOR THE INTEGRATION OF DIFFERENT ROAD NETWORKS** (Germany)

August 6th, 12:30 – 14:00 (Room: Galaxy 2)

Oral session 2: Update service technology

Chairmen: G. Wright / L.V. Vorobyeva

1. L. Arnold, G. Wright **APPLYING DYNAMIC SPATIAL UPDATING IN A THEMATIC MAPPING ENVIRONMENT** (Australia)
2. H. Ebadi, F. Farnood Ahmadi **ON-LINE INTEGRATION OF GIS AND GPS SYSTEMS FOR AUTOMATIC AND INTELLIGENT UPDATING OF SPATIAL DATA** (Iran)
3. B. Haj-Yehia, A. Peled **DEVELOPING AN INCREMENTAL UPDATING SYSTEM** (Israel)
4. R. Peng, Z.P. Chen, G.H. Liu, W.J. Gao **RESEARCH ON SHAPE FORMAT DIGITAL CHART UPDATE SERVICE TECHNOLOGY** (China)
5. T. Trainor **DATA INTEGRATION FROM MULTIPLE SOURCES: ENHANCING THE U.S. CENSUS BUREAU'S TIGER FILE** (USA)

10. CARTOGRAPHIC GENERALIZATION AND MULTIPLE REPRESENTATION

Chair: Anne Ruas

Vice-chair: William A. Mackaness

August 6th, 15:00 - 16:30 (Room: Evening Space 2)

COMMISSION MEETING

August 6th, 10:30 – 12:00 (Room: Galaxy 3)

Oral session 1: Generalization of 3D objects and surfaces

Chairmen: M. Sester / V.A. Malinnikov

1. M. Kada **3D BUILDING GENERALIZATION BY ROOF SIMPLIFICATION AND TYPIFICATION** (Germany)
2. J. Raheja, S. Rangunath **3D CARTOGRAPHIC AGGREGATION USING FUZZY THEORY APPROACH** (India)
3. B. Poupeau, A. Ruas **A CRYSTALLOGRAPHIC APPROACH TO SIMPLIFY 3D BUILDING** (France)
4. M. Basaraner **AUTOMATED CARTOGRAPHIC GENERALISATION OF BUILDINGS AND BUILT-UP AREAS IN O-O GIS** (Turkey)

August 6th, 12:30 – 14:00 (Room: Galaxy 3)

Oral session 2: Generalization of hydrology and relief

Chairmen: D. Burghardt / D.V. Lisitsky

1. O. Chaudhry, W. Mackaness **AUTOMATED SCALE DEPENDENT VIEWS OF HILLS AND RANGES VIA MORPHOMETRIC ANALYSIS** (United Kingdom)
2. D. Gotlib, R. Olszewski, J. Krupski **DIGITAL TERRAIN MODEL AS A COMPONENT OF THE MRDB TYPE REFERENCE DATABASE IN POLAND** (Poland)
3. J. Gaffuri **OUTFLOW PRESERVATION OF THE HYDROGRAPHIC NETWORK ON THE RELIEF IN MAP GENERALISATION** (France)
4. G. Touya **RIVER NETWORK GENERALISATION BASED ON STRUCTURE AND PATTERN RECOGNITION** (France)

August 6th, 15:00 – 16:30 (Room: The main hall)

Poster session 1:

Chairmen: W. Mackaness / V. Tikunov

1. D. Lee, P.G. Hardy **ANALYZING AND DERIVING GEOGRAPHIC CONTEXTS FOR GENERALIZATION** (USA)
2. H. Wu **EXTENDED FRACTAL THEORY AND ITS APPLICATION IN CARTOGRAPHIC GENERALIZATION** (China)
3. Y.L. Liu, L. Jiao **CATEGORICAL DATABASE INTEGRATION AND GENERALIZATION BASED ON THEMATIC ATTRIBUTES** (China)
4. L. Ge, F. Wu, R. Zhai, P. Wang **A RE-TRIANGULATION ALGORITHM IN 3D BUILDING GENERALIZATION** (China)
5. J. Li, T. Ai **THE DEM GENERALIZATION BASED ON THE FILLING OF VALLEY COVERAGE** (China)
6. D. Xu, H. Liu **THE STUDY OF RELIEF GENERALIZATION BASED ON DIGITAL ELEVATION MODEL** (China)

August 7th, 15:00 – 16:30 (Room: Galaxy 3)

Oral session 3: Area aggregation and generalization of continuous surface

Chairmen: J. Gaffuri / E. Podolskaya

1. P.R. Revell **AUTOMATED GENERALISATION AND REPRESENTATION OF ORDNANCE SURVEY POLYGONAL LANDCOVER DATA AT 1:10 000 SCALE** (United Kingdom)
2. J.-H. Haunert **OPTIMIZATION METHODS FOR AREA AGGREGATION IN LAND COVER MAPS** (Germany)

3. S. Perikleous, W. Mackaness, O. Chaudhry **REPRESENTATION OF FORESTED REGIONS AT SMALL SCALES, DERIVED FROM LARGE SCALE MAPPING** (United Kingdom)
4. J.P. Schroeder, R.B. McMaster **THE CREATION OF A MULTISCALE NATIONAL HISTORICAL GEOGRAPHIC INFORMATION SYSTEM FOR THE UNITED STATES CENSUS** (USA)

August 7th, 17:00 – 18:30 (Room: Galaxy 3)

Oral session 4: Dataset integration and multiple representation databases

Chairmen: W. Mackaness / V.F. Rozhkov

1. K.-H. Anders, M. Sester, J. Bobrich **INCREMENTAL UPDATE IN AN MRDB** (Germany)
2. A.M. Olteanu **MATCHING GEOGRAPHICAL DATA USING EVIDENCE THEORY** (France)
3. P. Luescher, D. Burghardt, R. Weibel **MATCHING OF ROAD DATA OF GREATLY DIFFERENT SCALES AND CONSTRUCTION OF A MULTIPLE REPRESENTATION DATABASE** (Switzerland)
4. C.A. Brewer, B.P. Battenfield, C. Frye, J. Acosta **SCALEMASTER: MULTI-SCALE MAPMAKING FROM MULTIPLE DATABASE RESOLUTIONS AND FOR MULTIPLE MAP PURPOSES** (USA)

August 8th, 10:30 – 12:00 (Room: Galaxy 3)

Oral session 5: Generalization research and national mapping agencies

Chairmen: L. Meng / D. Forrest

1. M. Bobzien, I. Petzold, D. Burghardt **AUTOMATED DERIVATION OF A 1:300 000 TOPOGRAPHIC MAP FROM SWISS DLM VECTOR 200** (Switzerland)
2. D. Forrest, R. Kannich **AUTOMATED SELECTION OF TOPOGRAPHIC BASE INFORMATION FOR THEMATIC MAPS** (United Kingdom)
3. N. Regnauld, A. Fechir, F. Lecordix, D. Rejkjaer **NMA'S COLLABORATIONS ON GENERALISATION: THE MAGNET CONSORTIUM** (United Kingdom, Belgium, France, Denmark)
4. P.J. Hardy, J.-L. Monnot, D. Lee **AN OPTIMIZATION APPROACH TO CONSTRAINT-BASED GENERALIZATION IN A COMMODITY GIS FRAMEWORK** (USA)
5. R. Zhai **AN AUTOMATED SELECTION MODEL OF DITCH BASED ON MULTI-OBJECTIVE OPTIMIZATION BY GENETIC ALGORITHM** (China)
6. Q. Guo, Z. Yang, X. Lu, C. Zheng **RESEARCH AND EXPERIMENT OF PROGRESSIVE CARTOGRAPHIC GENERALIZATION** (China)

August 8th, 12:30 – 14:00 (Room: Galaxy 3)

Oral session 6: Representing networks at multiple scales

Chairmen: G. Touya / V.A. Malinnikov

1. J. Tian **A CONSTRAINT-BASED PROGRESSIVE GENERALIZATION MODEL OF URBAN STREET NETWORK** (China)
2. H. Qian, L. Meng, M. Zhang **NETWORK SIMPLIFICATION BASED ON THE ALGORITHM OF POLARIZATION TRANSFORMATION** (China)
3. W. Dong, J.P. Liu, Q. Guo **RESEARCH ON AUTOMATED ROUTE SCHEMATIC MAP GENERALIZATION IN MOBILE ENVIRONMENT** (China)
4. V.A. Malinnikov, D.V. Uchaev **APPLICATION OF MULTIFRACTAL APPROACH IN GENERALIZING RIVER NETWORK CARTOGRAPHIC IMAGES** (Russia)

August 8th, 15:00 – 16:30 (Room: The main hall)

Poster session 2:

Chairmen: M. Bernat Rebollal / V.F. Rozhkov

1. M. Bernat Rebollal, J. Fernández Gianotti, R. Hernández Manchado, F. Pérez Cerdán, A. Prieto Martín **GEOLOGICAL MAP OF SPAIN at 1:50.000 scale ON INTERACTIVE DIGITAL SUPPORT** (Spain)
2. Y.S. Sengun, S. Aslan, B. Cetinkaya, O.N. Cobankaya **DETERMINATION OF FIELD CHARACTERISTICS BY THE HELP OF DEFINED FEATURES** (Turkey)
3. A.O. Dogru, N. Van de Weghe, N.N. Ulugtekin, Ph. De Maeyer **CLASSIFICATION OF THE ROAD JUNCTIONS BASED ON MULTIPLE REPRESENTATIONS: ADDING VALUE BY INTRODUCING ALGORITHMIC AND CARTOGRAPHIC APPROACHES** (Turkey, Belgium)
4. B. Kieler **A GEOMETRY-DRIVEN APPROACH FOR THE SEMANTIC INTEGRATION OF GEODATA SETS** (Germany)
5. N. Regnauld **A DISTRIBUTED SYSTEM ARCHITECTURE TO PROVIDE ON-DEMAND MAPPING** (United Kingdom)
6. T. Ai **A CONSISTENCY CORRECTION OF SHARED BOUNDARY AFTER POLYGON GENERALIZATION** (China)

August 9th, 10:30 – 12:00 (Room: Galaxy 3)

Oral session 7: Multi scale representation of linear features

Chairmen: O. Chaudhry / D. Strebe

1. L. Tsoulos, A. Skopeliti, T. Tzamakou **A COMPARATIVE STUDY OF THE INFLUENCE OF SIMPLIFICATION ALGORITHMS ON LINEAR FEATURES' SHAPE AND POSITION** (Greece)
2. Y. Liu, Y. Zheng, G. Li, S. Li **EXTRACTING THE INFORMATION OF COASTLINE SHAPE AND ITS MULTIPLE REPRESENTATION** (China)
3. K. Zhu, F. Wu, H. Wang, Q. Zhu **IMPROVEMENT AND ASSESSMENT OF LI-OPENSHAW ALGORITHM** (China)
4. D. Tutic, M. Lapaine, N. Vucetic **THE LENGTH OF COASTLINE OF THE ISLAND OF RAB** (Croatia)
5. V.F. Rozhkov, S.V. Koloskov, T.A. Khlebnikova **RESULTS OF DEVELOPMENT AND PROBLEMS OF AUTOMATED GENERALIZATION TECHNOLOGY IN MAPPING** (Russia)

August 9th, 12:30 – 14:00 (Room: Galaxy 3)

Oral session 8: Semantics and terminology in generalization

Chairmen: P. Hardy / E. Podolskaya

1. E.S. Podolskaya **BIBLIOGRAPHY OF RUSSIAN SCIENTIFIC WORKS ON MAP GENERALIZATION** (Russia)
2. Z.L. Li **ESSENTIAL OPERATIONS AND ALGORITHMS FOR GEOMETRIC TRANSFORMATIONS IN DIGITAL MAP GENERALIZATION** (Hong Kong)
3. Y. Long **MULTI-ESSENTIAL COOPERATION THEORIES AND METHODS OF GEOGRAPHICAL INFORMATION GENERALIZATION** (China)
4. T. Foerster, J. Stoter **TOWARDS A FORMAL CLASSIFICATION OF GENERALIZATION OPERATORS** (Netherlands)

11. CARTOGRAPHY AND SATELLITE IMAGERY FOR THE MANAGEMENT OF NATURAL RESOURCES AND THE ENVIRONMENT, EARLY WARNING AND NATURAL DISASTERS MITIGATION

Chair: Graciela Metternicht

Vice-chair: Serge Le Blanc

August 6th, 10:30 - 12:00 (Room: Evening Space 2)

COMMISSION MEETING

August 5th, 17:00 – 18:30 (Room: Venus)

Oral session 1: Cartography and satellite imagery for the management of the built environments

Chairmen: G. Metternicht / V.I. Kravtsova

1. T. De Roeck, T. Van de Voorde, F. Canters **A MULTI-RESOLUTION STRATEGY FOR MAPPING SEALED SURFACES FOR BRUSSELS AND SURROUNDINGS** (Belgium)
2. Y. Yang, C.Q. Zhu, D. Zhang **EXTRACTING ROAD NETWORK FROM HIGH RESOLUTION REMOTE SENSING IMAGES BASED ACTIVE WINDOW LINE SEGMENT MATCHING** (China)
3. D.L. Dechlan, M.D. Sebake **MAPPING POST APARTHEID SETTLEMENT GROWTH PATTERNS USING REMOTE SENSING AND GIS: A CASE OF SELECTED SOUTH AFRICAN CITIES** (South Africa)
4. A. Bianchin, L. Bravin **MAPPING URBAN TRANSFORMATIONS USING SATELLITE IMAGES** (Italy)

August 7th, 12:30 – 14:00 (Room: Venus)

Oral session 2-1: Cartography and satellite imagery for environmental management

Chairmen: A Bianchin / E.R. Bayramov

1. M.F. Buchroithner, T. Bolch **AUTOMATED MAPPING OF SCREE-COVERED GLACIERS USING SPACE IMAGERY** (Germany)
2. P. Blanco, G. Metternicht, H. del Valle **EVALUATING THE CARTOGRAPHIC CAPABILITY OF ASTER AND RADARSAT IMAGERY FOR MONITORING SOIL EROSION INDICATORS IN THE ARGENTINEAN PATAGONIA: AN OBJECT ORIENTED APPROACH** (Argentina, Australia)
3. C.M.F. Pereira, E.C. Riqueza, F.L. Melo, O.R. Vergara **G-SNAKES: A NEW ALGORITHM APPLIED TO OIL-SPOT SEGMENTATION USING RADARSAT 1 IMAGES** (Brazil)
4. E.R. Bayramov **MODELLING METHOD OF POTENTIAL CASPIAN SEA LEVEL FLUCTUATION IMPACTS ON THE COASTAL ZONES FOR ENVIRONMENTAL MANAGEMENT PURPOSES BY USAGE OF HIGH-RESOLUTION STEREO SATELLITE IMAGES** (Azerbaijan)

August 7th, 15:00 – 16:30 (Room: Venus)

Oral session 3: Cartography and satellite imagery for land use/land cover analysis

Chairmen: M. Buchroithner / Y.F. Knizhnikov

1. H.P. Sato, R. Tateishi, J. Xiao **MAPPING OF SE ASIA LAND COVER COMBINING TERRA/MODIS DATA WITH THE EXISTING CHINA NATIONAL LAND USE/COVER DATA** (Japan)
2. M. Bian, T. Wang, Y. Liu, T. Fei **MAPPING THE DISTRIBUTION AND BIOMASS OF BAMBOO IN THE FOREST UNDER-STOREY OF QINLING MOUNTAINS, A REMOTE SENSING APPROACH** (China, Netherlands)

3. Y.F. Liu **RURAL LAND-USE AUTOMATIC INTERPRETATION RESEARCH BASED ON HIGH-RESOLUTION RS IMAGES** (China)
4. Q. Zhou, B. Li, A. Kurban **USE OF SATELLITE IMAGERY FOR SPATIAL PATTERN ANALYSIS ON LANDUSE CHANGE** (Hong Kong)

August 7th, 17:00 – 18:30 (Room: Venus)

Oral session 4: Cartography and satellite imagery for coastal management and early warning

Chairmen: X. Yang /A.N. Krajukhin

1. A. Lamaro, S. Torrusio, J. Ulibarrena, H. Mugni, C. Bonetto **COASTAL CHANGES MAPPING BY MEAN OF TOPOGRAPHIC MAPS, REMOTE SENSING AND GIS TECHNIQUES IN SAMBOROMBON BAY, BUENOS AIRES, ARGENTINA** (Argentina)
2. V.I. Kravtsova **OPERATIONAL SPACE MAPPING AS A TOOL OF THE ARAL SEA MONITORING AND SURROUNDED TERRITORIES DEGRADATION** (Russia)
3. M. Monique, D.L. Pillay, M. Sham **THE USE OF REMOTE SENSING AND GIS TO DELINEATING THE BOUNDARIES AND CREATING A BUFFER ZONE TO DEMARCATATE THE BLESBOKSPRUIT RAMSAR WETLAND SITE – SOUTH AFRICA** (South Africa)
4. P. Fernandez, C. Irigaray, R. El Hamdouni, J. Jimenez, J. Chacon **USING DINSAR INTERFEROMETRY OF RADAR SATELLITE IMAGES IN QUANTITATIVE ASSESSMENT OF LANDSLIDE ACTIVITY IN THE GUADALFEO RIVER VALLEY (GRANADA, SOUTH OF SPAIN)** (Spain)

August 8th, 12:30 – 14:00 (Room: The main hall)

Poster session:

Chairmen: T. de Roeck / Y.F. Knizhnikov

1. Y.L. Liu, F. Xia, Y.F. Liu **SCALING EFFECTS ON LANDSCAPE PATTERN INDICES** (China)
2. Y. F. Knizhnikov, V.I. Kravtsova **THE ROLE OF STEREOSCOPIC AEROSPACE IMAGES IN INVESTIGATION AND MAPPING GEOGRAPHICAL PHENOMENA DYNAMICS** (Russia)
3. J. Huang **MONITORING UNDERWATER TOPOGRAPHY BY SATELLITE REMOTE SENSING IN NANTONG SECTION OF YANGTZE RIVER** (China)
4. A.N. Krajukhin, G.V. Pozdnjak, V.V. Sveshnikov, V.I. Ryabchikova, S.V. Krivov **SPACE INFORMATION IN CARTOGRAPHY WORKS** (Russia)
5. G.I. Metternicht, K. Halloran, C. Baldacchino **APPLICATIONS OF HIGH RESOLUTION REMOTE SENSING IMAGERY TO PRECISION CROP AND VITICULTURE MANAGEMENT** (Australia)
6. D. Protic, I. Nestorov **LAND COVER MAPPING IN SERBIA** (Serbia)
7. M. Edou, A.P.M. Biyogo, M. Tchindjang **EXTRACTION D'UNE COUCHE DE VEGETATION POUR LE PARC NATIONAL DE MINKEBE A PARTIR DES IMAGES SATELLITALES POUR UN SYSTEME D'INFORMATION GEOGRAPHIQUE** (Gabon, Cameroon)
8. A.A. Alyabyev, S.V. Serebryakov, E.A. Kobzeva **CREATION AND UPDATING THE CARTOGRAPHIC INFORMATION ON THE BASE OF REMOTE SENSING DATA** (Russia)
9. L. Shi **DISASTER INFORMATION INTEGRATION METHOD OF DISASTER PREVENTION AND REDUCTION SYSTEM** (China)

August 8th, 15:00 – 16:30 (Room: Venus)

Oral session 5: Applications of satellite imagery for cartography of environmental degradation and natural disasters

Chairmen: V.I. Kravtsova / M. Koarai

1. E. Buard **CARTOGRAPHY OF HUMAN WILDLIFE CONFLICTS IN KENYA** (France)
2. E.F. Kah, M. Tchindjang, F.V. Menga, E. Tonye **CONTRIBUTION OF REMOTE SENSING IN THE EVALUATION OF FOREST DYNAMICS ON THE SLOPES OF MOUNT CAMEROON** (Cameroon)
3. M. Koarai, H.P. Sato, H. Une, T. Kitahara **GIS ANALYSIS OF THE RELATIONSHIP BETWEEN EARTHQUAKE DAMAGES AND MICRO LANDFORMS USING LAND CONDITION MAPS** (Japan)
4. S. Husnjak **MAPPING OF SOIL EROSION RISK IN CROATIA WITH APPLICATION OF GIS TECHNOLOGY** (Croatia)

August 8th, 17:00 – 18:30 (Room: Venus)

Oral session 2-2: Cartography and satellite imagery for environmental management

Chairmen: D. Fraser / V.I. Ryabchikova

1. V.I. Kravtsova, E.V. Rodionova **DYNAMICS OF BUILT-IN AREAS IN MOSCOW SUBBURBS: MAPPING AND ANALYSING BY SATELLITE IMAGES** (Russia)
2. T. Fei, Y. Liu, M. Bian **MONITORING UNDERWATER LIGHT CLIMATE FOR AQUATIC VEGETATION IN POYANG LAKE BY REMOTE SENSING** (Netherlands, China)
3. L.S. Santos, C.J. Bielenki, N.O. Nascimento **THE CARTOGRAPHIC DATA IMPORTANCE IN THE HYDROLOGICAL AND HYDRAULIC STUDIES: THE CASE OF MANHUAÇU CATCHMENT, MINAS GERAIS, BRAZIL** (Brazil)
4. X. Yang **INTEGRATING LIDAR AND HIGH-RESOLUTION IMAGERY DATA FOR TOPOGRAPHIC AND HYDROLOGICAL MAPPING OVER A COASTAL MARSH AREA** (USA)

12. MAPS AND THE INTERNET

Chair: Michael P. Peterson

Vice-chair: Georg Gartner

August 6th, 17:00 - 18:30 (Room: Evening Space 21)

COMMISSION MEETING

August 5th, 15:00 – 16:30 (Room: Galaxy 4)

Oral session 1: New Methods in Online Map Presentation

Chairmen: B. Cartwright / I. Kiselev

1. R. Windiastuti, S.L. Munajati, D.K. Kresnawati **MAPS PRESENTATION ON THE INTERNET** (Indonesia)
2. R. Liu, X. Zhou, J. Jiang, Y. Jia, P. Lu **NATIONAL DYNAMIC ATLAS: A NEW WEB BASED MAPPING SYSTEM** (China)
3. B. Li, J.P. Liu **DESIGN OF TOURIST WEB MAP** (China)
4. A. Kurban, A. Ablimit **DESIGN AND IMPLEMENTATION OF MULTI LANGUAGE BASE MAP INFORMATION SYSTEM FOR DIGITAL XINJIANG** (China)

5. M. Govorov, G. Gienko, B. Maguire **THE USER INTERFACE FOR WEB-BASED COMMUNITY-OPEN REMOTE-SENSING PARTICIPATORY MECHANISM** (Canada, Fiji)

August 6th, 10:30 – 12:00 (Room: Galaxy 4)

Oral session 2: Cartographic Services and Markup Languages

Chairmen: M. Peterson / A. Wolodtschenko

1. O. Schnabel, L. Hurni **DIAGRAM MARKUP LANGUAGE - A NEW MODEL FOR SYMBOLIZATION IN INTERNET MAPS** (Switzerland)
2. O. Cerba **XML TECHNOLOGIES FOR CARTOGRAPHERS** (Czech Republic)
3. R.G. Cammack **XML, RSS AND THE ROLE OF SYNDICATION IN COMMUNITY CENTERED CARTOGRAPHY** (USA)
4. Y. Liu, S. Li, Y. Zheng, G. Li **RESEARCHING THE GRAPHICS FORMAT OF SVG AND ITS APPLICATION IN WEBGIS** (China)

August 6th, 12:30 – 14:00 (Room: Galaxy 4)

Oral session 3: Online Mapping Applications

Chairmen: R. Cammack / L. Kildushevskaya

1. L. Xiong, Q. Du, H. Hu, M. Huang **HUMAN-MACHINE INTERACTIVE INTERFACE DESIGN INVESTIGATION OF WEBGIS INTROJECTED WITH VISI** (China)
2. M.Z. Zira, K.C. Cabs, M.C. Cekule **INTERACTIVE BUSINESS GEOLOCALIZATION** (Latvia)
3. S. Iversen **LARGE FORMAT MAPS ON THE INTERNET** (Norway)
4. L. Kildushevskaya, L. Zinchuk **NEW TECHNOLOGIES AND ACCESSIBILITY OF UNIQUE CARTOGRAPHIC COLLECTION** (Russia)
5. X.K. Liu, Q. Du, T. Liu **RESEARCH ON OUTDOOR AUGMENTED REALITY SYSTEM BASED ON ARTOOLKIT** (China)

August 7th, 10:30 – 12:00 (Room: Galaxy 4)

Oral session 4: Open Source and Community-based Online Mapping

Chairmen: S. Iversen / G. Gartner

1. B. Bucher **A CARTOGRAPHIC WEB CLIENT TO EXPLORE REMOTE GI METHODS** (France)
2. P. Apparicio, C. Levesque **ATLAS OF ABORIGINAL COMMUNITIES OF QUEBEC (CANADA): AN INTERACTIVE WEB-ATLAS DEPLOYED WITH SCALE VECTOR GRAPHICS, C# AND ASP.NET** (Canada)
3. M. Tee **HISTORICAL MAPS IN INTERNET GIS SOLUTIONS. QVIZ: AN EXAMPLE OF COMMUNITY-BASED WEB-GIS** (Estonia)
4. D. Zhang, L. Ailong, W. Ling, Y. Xuewei, C. Tao **SPATIAL MAP DATA SHARE AND DISSEMINATION SYSTEM BASED ON DISTRIBUTED NETWORK SERVICES** (China)
5. I. Iosifescu Enescu, M. Hugentobler, L. Hurni **CARTOGRAPHIC EXTENSIONS TO OGC WEB MAP SERVICES - SPECIFICATIONS FOR A MAP AND DIAGRAM SERVICE** (Switzerland)

August 7th, 12:30 – 14:00 (Room: Galaxy 4)

Oral session 5: Online Mapping and Multimedia Applications

Chairmen: F. Taylor / N.A. Alekseenko

1. S. Christophe **A WEB DIALOGUE APPLICATION FOR CREATIVE PORTRAYAL** (France)

2. A.A. Medvedev, N.A. Alekseenko **USE OF MULTIMEDIA AND INTERNET TECHNOLOGY FOR DEVELOPING ECOLOGICAL EDUCATION AND RECREATION** (Russia)
3. S. Gao, D. Mioc, X. Yi, F. Anton, D.J. Coleman, B. MacKinnon, E. Oldfield **A METHODOLOGY FOR CROSS-BORDER INFECTIOUS DISEASE MAPPING** (Canada)

August 7th, 15:00 – 16:30 (Room: Galaxy 4)

Oral session 6: Applications in Online Mapping

Chairmen: A. Kurban / L. Zentai

1. K. Goldsberry **A NEW REAL-TIME TRAFFIC MAP FOR LOS ANGELES, CALIFORNIA** (USA)
2. J. Shen, M. Wang, X. Yu **DESIGN AND IMPLEMENTATION OF CAMPUS WEB MAP BASED ON SVG** (China)
3. H. Ohno, K. Kawase, H. Fujimura, Y. Yamamoto **IMPROVED DIGITAL JAPAN FRAMEWORK GOOGLE INDEPENDENT GOVERNMENTAL WEB MAP INFORMATION SYSTEM** (Japan)

August 7th, 17:00 – 18:30 (Room: Galaxy 4)

Oral session 7: Use and User Issues

Chairmen: C. van Elzakker / M. Peterson

1. C.R. Perkins **CULTURES OF MAP USE** (United Kingdom)
2. A.-M. Nivala, S. Brewster, L.T. Sarjakoski **USABILITY EVALUATION OF ONLINE MAP SERVICES** (Finland, United Kingdom)
3. R.E. Kramers **THE ATLAS OF CANADA'S TOPOGRAPHIC MAPS – USER REQUIREMENTS RESEARCH AND PRODUCT IMPLEMENTATION** (Canada)
4. M. Haklay **USABILITY ENGINEERING FOR GIS: LEARNING FROM A SNAPSHOT** (United Kingdom)
5. C.P.J.M. van Elzakker, P.J.M. van Oosterom, I. Delikostidis **TESTING THE USABILITY OF WELL SCALED MOBILE MAPS FOR CONSUMERS** (Netherlands)

August 8th, 15:00 – 16:30 (Room: Galaxy 4)

Oral session 8: Internet Maps and GIS

Chairmen: R. Edsall / I.V. Kiselev

1. G.S. Liang, D. Mioc, F. Anton **A WEBGIS APPLICATION FOR FLOOD RESCUE** (Canada)
2. B.A. Wuest **DYNAMIC VEHICLE ROUTING IN INTERNET GIS** (Canada)
3. L. Wang, A. Qiu **DESIGN AND APPLICATION OF GIS SOFTWARE PLATFORM INTEGRATED DSS FACED E-GOVERNMENT** (China)
4. M. Hugentobler, I. Iosifescu Enescu, L. Hurni **A DESIGN CONCEPT FOR IMPLEMENTING INTEROPERABLE CARTOGRAPHIC SERVICES BASED ON REUSABLE GIS COMPONENTS** (Switzerland)
5. I.V. Kiselev **ELECTRONIC MAP COLLECTION IN THE NATIONAL LIBRARY OF RUSSIA** (Russia)

August 8th, 15:00 – 16:30 (Room: Galaxy 4)

Poster session: Internet Maps and GIS

Chairmen: R. Edsall / I.V. Kiselev

1. F. Conto, M. Scarso, M. Gnesutta, R. Aere **WEBGIS PROJECTS FOR THE KNOWLEDGE OF THE TERRITORY** (Italy)

August 8th, 17:00 – 18:30 (Room: Galaxy 4)

Oral session 9: Internet Maps and GIS

Chairmen: M.P. Peterson / V. Moskalenko

1. M.P. Peterson **MAPS AND THE INTERNET: WHAT A MESS IT IS AND HOW TO FIX IT!** (USA)
2. G. Origel-Gutierrez, L. Ferrari, J. Lopez-Blanco **DIGITAL GEOSCIENCES: E-JOURNAL OF INTERACTIVE ON-LINE MAPS** (Mexico)
3. R.M. Edsall **GLOBALIZATION AND CARTOGRAPHIC DESIGN: IMPLICATIONS OF THE GROWING DIVERSITY OF MAP USERS** (USA)
4. W. Ladniak, K. Kalamucki **THE CRITERIA OF COMPREHENSIVE EVALUATION OF MAPS IN THE INTERNET**(Poland)

13. INTERNET LOCATION-BASED SERVICES, MOBILE MAPPING AND NAVIGATION SYSTEMS

Chair: Takashi Morita

August 7th, 15:00 - 16:30 (Room: Evening Space 2)

COMMISSION MEETING

August 8th, 10:30 – 12:00 (Room: Galaxy 4)

Oral session 1: Ubiquitous mapping, general positions

Chairmen: T. Morita / Y.O. Karpinsky

1. T. Morita **CONCEPT OF REAL SCALE MAP AND THE ALLOCATION OF REFERENCE POINTS IN UBIQUITOUS MAPPING** (Japan)
2. T. Sarjakoski, L.T. Sarjakoski, R. Kuittinen **ESTABLISHING A TEST ENVIRONMENT FOR UBIQUITOUS GEOSPATIAL APPLICATIONS** (Finland)
3. C. Kurokawa, M. Ota **PORTRAYAL SCHEMA DESIGN AND MECHANISM FOR MAP PERSONALIZATION** (Japan)
4. S. Mas-Mayoral, A. Garcia-SanRoman, A. Gonzalez-Jimenez, A. Velasco-Tirado **“CARTOCIUDAD”: THE USE OF OFFICIAL DIGITAL GEOGRAPHIC INFORMATION TO PROVIDE LOCATED-BASED, MAPPING AND NAVIGATION OGC SERVICES** (Spain)

August 8th, 12:30 – 14:00 (Room: Galaxy 4)

Oral session 2: Mobile mapping

Chairmen: M. Arikawa / V. Moskalenko

1. M. Arikawa, K. Tsuruoka, H. Fujita **A VISUAL MAP-INTEGRATED PODCAST ON MOBILE AUDIO PLAYERS** (Japan)
2. D. Burghardt, A. Edwardes, T. Woodtli, R. Weibel **MOBILE LEARNING FOR SPATIAL SCIENCES** (Switzerland)
3. H. Liu, J. Li **ONLINE MAPPING OF FISH SPECIES AT RISK IN THE ONTARIO GREAT LAKE AREA, CANADA** (Canada)
4. T. Maruyama, T. Morita **EFFECTIVENESS OF “SIGN MAP” FOR MOBILE MAPPING** (Japan)

August 8th, 15:00 – 16:30 (Room: The main hall)

Poster session:

Chairmen: T. Morita / Y.O. Karpinskiy

1. D. Zhang, L. Ailong, T. Chen **STUDY ON ROUTE PROGRAMMING FOR VEHICLE NAVIGATION BASED ON ROUTE AVAILABILITY MODEL** (China)
2. J. Zboril **MOBILE CARTOGRAPHY IN LANDSCAPE MAPPING** (Czech Republic)
3. Mr. Polymenidis, Mr. Pagonis, Mr. Vavekis **MAPPING THE ROAD FROM GREECE TO RUSSIA. A MENTAL MAP DESIGNED ON THE WAY TO THE XXIII INTERNATIONAL CARTOGRAPHIC CONFERENCE IN MOSCOW** (Greece)
4. A.A. Lyashchenko, Y.O. Karpinskiy, O. Kibetc **THE UKRAINIAN CARTOGRAPHIC NETWORK IN THE INTERNET** (Ukraine)
5. A.V. Ales Versic **DELIVERY SPATIAL DATA USING WEB SERVICES (WEB MAP SERVICE AND WEB FEATURE SERVICE) BASED ON GEOGRAPHIC INFORMATION SYSTEMS** (Slovenia)
6. Y.K. Cheung, W. Chen, Z. Li **SIMPLIFICATION OF MAP CONTENTS FOR MOBILE-BASED NAVIGATION** (Hong Kong)
7. C. Torrecillas, A. Hermosilla Carrasquilla, M. Redondo, M Berrocoso, R. Paez, A. Sanchez-Alzola **THE RAP NET: A GEODETIC POSITIONING NETWORK FOR ANDALUSIA (SOUTH SPAIN)** (Spain)

August 9th, 10:30 – 12:00 (Room: Galaxy 4)

Oral session 3: Wayfinding and mapping

Chairmen: G. Gartner / L.G. Rudenko

1. G. Gartner **SEMANTIC WAYFINDING WITH UBIQUITOUS CARTOGRAPHY** (Austria)
2. L. De Temmerman, Ph. De Maeyer, N. Van de Weghe **MAPPING WAYFINDING STRATEGIES FOR EMERGENCY SERVICES** (Belgium)
3. E. Pugliesi **VISUAL DEMAND, SUBJECTIVE PREFERENCES AND NAVIGATIONAL ERRORS OF CAR NAVIGATION SYSTEM** (Brazil)
4. Y.W. Wakabayashi **GENDER-RELATED DIFFERENCES IN THE MAP USE OF IN-VEHICLE NAVIGATION SYSTEMS** (Japan)

August 9th, 12:30 – 14:00 (Room: Galaxy 4)

Oral session 4: Web based geographic information

Chairmen: Y. Shiraishi / R. Yakovleva

1. Y. Shiraishi, M. Arikawa **SPATIAL DOCUMENT MANAGEMENT SYSTEM FOR UBIQUITOUS MAPPING AND SPATIAL BOOKMARKING** (Japan)
2. H. Fujita, M. Arikawa **MAPPING PERSONAL PHOTO COLLECTIONS FOR TELLING STORIES WITH PLACES** (Japan)
3. R. Solar, M. Janezic, G. Mahnic, D. Radovan **SPATIAL QUERYING OF GEOCODED LIBRARY RESOURCES ON INTERNET** (Slovenia)
4. S.C. Hibbert **THE APPLICATION OF WEB BASED GEOGRAPHIC INFORMATION SYSTEMS (WEB GIS) IN SECURING HOUSING SOLUTIONS WITHIN THE UNIVERSITY OF NEW BRUNSWICK, FREDERICTON LOCALITY** (Canada)
5. B. Gao **THE DESIGN OF LBS SYSTEM** (China)

14. MARINE CARTOGRAPHY, NAVIGATION AND OCEAN MAPPING

Co-chairs: Ron Furness, Takashi Morita

Vice-chair: David Green

August 9th, 10:30 - 12:00 (Room: Evening Space 1)

COMMISSION MEETING

August 6th, 10:30 – 12:00 (Room: Galaxy 1)

Oral session: Marine cartography, navigation and ocean mapping

Chairmen: X. Yang / A.N. Krajukhin

1. Y. Chen, R. Peng, G.H. Liu, W.J. Gao **REAL-TIME VISUALIZATION MODEL AND TECHNIQUE OF NAVIGABLE AREA BASED ON DIGITAL NAUTICAL CHART** (China)
2. R. Shirocov **GIS-ORIENTED BATHYMETRIC AND BOTTOM TEMPERATURE MAPS OF THE BARENTS AND THE KARA SEAS** (Russia)
3. T.D. Leder, M. Lapaine **ENC PRODUCTION PROCESS DESIGN FOR CROATIAN PART OF THE ADRIATIC SEA AREA** (Croatia)
4. S. Li, Y. Zheng, G. Li, X. Dai **RELATION BETWEEN THE PRODUCTIONS OF HYDROGRAPHIC SURVEYING AND CHARTING AND MARINE LAWS** (China)

August 6th, 12:30 – 14:00 (Room: The mail hall)

Poster session:

Chairmen: Z. Tian / R. Shirocov

1. R. Peng, G.H. Liu, L.X. Guo, Y. Chen, Y. Zheng, H.R. Chen **RESEARCH ON CHINA NAUTICAL CHART INTEGRATIVE UPDATE MODEL AND TECHNIQUE** (China)
2. T.D. Leder, N. Leder **HYDROGRAPHIC PRODUCTION LINE DESIGN FOR SMALL COUNTRIES – EXAMPLE OF CROATIAN HYDROGRAPHIC OFFICE** (Croatia)
3. H.R. Chen, S. Li, L.X. Guo, J. Jin **DELIMITATION OF AREA COVERAGE FOR SEABED MATERIAL BASED ON VORONOI DIAGRAMS** (China)
4. Z. Tian, G.-X. Chen, Y. Zheng, F. Cheng, J. Guo **COPYRIGHT PROTECTION OF NAUTICAL CHART BASED ON DIGITAL WATERMARK: TECHNIQUE, MODEL AND APPLICATION IN CHINA** (China)
5. L.D. Wu, X.D. Yin, L.H. Zhang, Z.J. Chen **AN EFFICIENT ALGORITHM TRACING EQUIVALENT DEPTH BASED ON TRIANGLE TOPOLOGY** (China)
6. Y. Zheng, R. Peng, S. Li, Y. Chen, G.H. Liu **RESEARCH ON INTEGRATIVE PRODUCING TECHNIQUE OF PAPER CHART AND DIGITAL CHART** (China)

15. NATIONAL AND REGIONAL ATLASES, ELECTRONIC ATLASES, THEMATIC AND MULTIMEDIA CARTOGRAPHY

Chair: Timothy F. Trainor

Vice-chairs: Peter Jordan, Fernando Aranaz

August 6th, 12:30 - 14:00 (Room: Evening Space 2)

COMMISSION MEETING

August 5th, 15:00 – 16:30 (Room: Saturn)

Oral session 1-1: National atlases I

Chairmen: N.N. Komedchikov / L. Hurni

1. A.N. Krajukhin, G.V. Pozdnjak, N.V. Smurova, N.N. Polunkina, V.V. Sveshnikov, V.I. Ryabchikova, S.V. Krivov **THE NATIONAL ATLAS OF RUSSIA. VOLUME 1 “GENERAL CHARACTERISTICS OF THE TERRITORY”** (Russia)
2. G.V. Pozdnjak, A.N. Krajukhin, G.F. Kravchenko **THE NATIONAL ATLAS OF RUSSIA. VOLUME 2 “NATURE. ECOLOGY”** (Russia)
3. G.V. Pozdnjak, A.N. Krajukhin **THE NATIONAL ATLAS OF RUSSIA. VOLUME 3 “POPULATION. ECONOMY”** (Russia)
4. E.M. Regentova **THE NATIONAL ATLAS OF RUSSIA. VOLUME 4 “HISTORY. CULTURE”** (Russia)

August 5th, 17:00 – 18:30 (Room: Saturn)

Oral session 1-2: National atlases II

Chairmen: V. Tikunov / C. Haeberling

1. A.I. Elchaninov **NATURAL AND CULTURAL HERITAGE IN THE NATIONAL ATLAS OF RUSSIA** (Russia)
2. L.I. Pivak **GENERAL GEOGRAPHIC ATLAS OF UKRAINE** (Ukraine)
3. L.M. Veklych **NATIONAL ATLAS OF UKRAINE (STRUCTURE AND CONTENTS)** (Ukraine)
4. N.N. Komedchikov, A.G. Khropov **TRENDS IN ATLAS MAPPING IN RUSSIA (2002-07)** (Russia)

August 6th, 15:00 – 16:30 (Room: Saturn)

Oral session 1-3: National atlases III

Chairmen: P. Jordan / G.V. Pozdnjak

1. K. Koreleski **CHOSEN CONTEMPORARY ATLASES OF POLAND AND THEIR USEFULNESS FOR AGRICULTURAL LAND VALUATION** (Poland)
2. L.G. Rudenko, A.I. Bochkovskaja, T.I. Kozachenko, V.P. Razov **THE CONCEPT OF UKRAINE NATIONAL ATLAS AND ITS REALIZATION** (Ukraine)
3. T.M. Mirzaliev **ON THE PROBLEM OF DESIGN CONCEPT OF REPUBLIC UZBEKISTAN NATIONAL ATLAS** (Uzbekistan)

August 6th, 17:00 – 18:30 (Room: Saturn)

Oral session 2: Internet atlases & atlas information systems

Chairmen: T. Trainor / A.N. Krajukhin

1. H. Baer, R. Sieber, J. Cron, P. Marty, L. Hurni **A NEW WEB ATLAS FOR GEOGRAPHICAL EDUCATION – TECHNICAL IMPLEMENTATION AND NEW APPROACHES** (Switzerland)
2. W.E. Cartwright, A. Miles, L. Vaughan, J. Yuille **AFFECTIVE ATLAS – CONSTRUCTING AN ATLAS USING WEB 2.0 AND SOCIAL SOFTWARE** (Australia)
3. K. Kriz, A.P. Pucher, G. Katzlberger **ATLAS INFORMATION SYSTEM OF AUSTRIA - OROK ATLAS ONLINE** (Austria)
4. M. Lechthaler **HYBRID SYSTEM DESIGN FOR CROSS-MEDIA PUBLISHING IN THE NATIONAL ATLAS INFORMATION SYSTEM** (Austria)

August 7th, 10:30 – 12:00 (Room: Saturn)

Oral session 3-1: Multimedia & visualization

Chairmen: W. Cartwright / E.M. Regentova

1. P. Marty, C. Haeberling, L. Hurni **"SWISS WORLD ATLAS – INTERACTIVE" – ANALYSIS OF USER NEEDS AND OBJECTIVES OF A NEW SCHOOL ATLAS** (Switzerland)
2. G. Kariotis, E. Panagiotopoulos, G. Kariotou, N. Karanikolas **CREATION OF A DIGITAL INTERACTIVE TOURIST MAP WITH THE CONTRIBUTION OF**

G.P.S. AND G.I.S. TECHNOLOGY TO VISUALIZATION OF THE INFORMATION (Greece)

3. U. Hedlund, U. Okafor **NATIONAL MAPPING IN AFRICA – NAMIBIA LAUNCHES NEW NATIONAL MAP PRODUCTS AS A PART OF THEIR NSDI** (Sweden, Namibia)
4. A.J. Vilkov **MULTIMEDIA AND INTERNET ATLAS OF THE MOSCOW STATE UNIVERSITY CAMPUS** (Russia)
5. H. Asche **2D VS 3D MAPPING OF DEMOGRAPHIC DATA: ADVANCING VISUALISATION IN ATLAS CARTOGRAPHY** (Germany)

August 7th, 12:30 – 14:00 (Room: Saturn)

Oral session 3-2: Multimedia & visualization

Chairmen: M.J. Kraak / A.I. Elchaninov

1. T. Midtbø **ADVANCED LEGENDS FOR INTERACTIVE DYNAMIC MAPS** (Norway)
2. Y. Li, J.P. Liu, H. Wang **APPLICATION OF MULTIMEDIA COMMUNICATION TECHNIQUE IN DECISION-MAKING SYSTEM FOR EMERGENCY CONTROL** (China)
3. D. R. Dukaczewski **METHOD OF CHOICE OF VARIABLES AND CARTOGRAPHIC PRESENTATION METHODS FOR COMPLEX CARTOGRAPHIC ANIMATIONS** (Poland)
4. V.S. Pisarev **THE NOVOSIBIRSK AREA ELECTRONIC ATLAS «LOVE AND STUDY YOUR HOMETLAND»** (Russia)
5. M.J. Kraak, F.J. Ormeling, W. Broeder, E. MacGillavry, W. Goorbergh **THE DUTCH NATIONAL ATLAS IN A GII ENVIRONMENT: THE APPLICATION OF DESIGN TEMPLATES** (Netherlands)

August 7th, 15:00 – 16:30 (Room: Saturn)

Oral session 4: Regional atlases

Chairmen: B. Rystedt / K. Shingareva

1. T. Lunden, G. Beconyte, M. Govorov **ATLAS OF THE BALTIC SEA REGION: NEED AND OPPORTUNITIES** (Sweden, Lithuania, Canada)
2. M. Myridis, N. Karanikolas, P. Lafazani, D. Ramnalis **DESIGNING AN ELECTRONIC THEMATIC ATLAS FOR THE GREEK INSULAR AREA** (Greece)
3. P. Jordan **THE PROBLEM OF INSULAR MAPS IN NATIONAL AND REGIONAL ATLASES ON THE BACKGROUND OF AN INTEGRATING EUROPE** (Austria)
4. S.V. Tchistov, I.A. Simonov **CARTOGRAPHIC SUPPORT FOR RESEARCH OF THE NHA TRANG GULF (THE SOUTH-CHINESE SEA) WATER AREA BIOPRODUCTIVITY** (Russia)

August 7th, 15:00 – 16:30 (Room: Saturn)

Poster session:

Chairmen: B. Rystedt / K. Shingareva

1. V. Vozenilek, Z. Stavova, M. Kozakova, M. Jancik **LANDSCAPE ATLAS OF THE CZECH REPUBLIC** (Czech Republic)

August 7th, 17:00 – 18:30 (Room: Saturn)

Oral session 5: Methodological aspects of atlas creation

Chairmen: S. Tzschaschel / A.J. Vilkov

1. J. Cron, R. Sieber, L. Hurni **GUIDELINES TO OPTIMIZED GRAPHICAL USER INTERFACES OF INTERACTIVE ATLASES** (Switzerland)
2. V. Vozenilek, M. Kozakova, M. Jancik, Z. Stavova **MAP LANGUAGE RELATIONSHIPS WITHIN AN ATLAS PROJECT** (Czech Republic)
3. S. Huber, R. Sieber, M. Ruegsegger, L. Hurni **MULTIVARIATE MAPPING IN HIGH STANDARD ATLASES** (Switzerland)
4. S.A. Sukhorukova **CARTOGRAPHIC REVEALING METHOD OF NATURAL INFECTION LOCATIONS (CASE STUDY ON TICK ENCEPHALITIS)** (Russia)

August 8th, 10:30 – 12:00 (Room: Saturn)

Oral session 6-1: Thematic atlases – Physical

Chairmen: V. Vozenilek / V.S. Pisarev

1. I. Kovalchuk, A. Mykhnovych **FLOODS AND FLOOD RISK MAPPING IN THE UPPER DNISTER RIVER VALLEY** (Ukraine)
2. I.E. Sidorina, T.M. Petrova **GEODYNAMIC PROCESS MAPPING METHODOLOGY. DEVELOPING THE “GEODYNAMICS” SYSTEM OF ELECTRONIC MAPS** (Russia)
3. M.J. Iniesto Alba, P. Carballo Cruz **SCIENTIFIC INTEGRAL FRAMEWORK FOR THE REPRESENTATION OF THE SUBSOIL INFORMATION** (Spain)
4. K. Koreleski **ENVIRONMENTAL RISK MAPPING FOR AGRICULTURAL PURPOSES IN POLAND** (Poland)
5. L. Vega, R. Morales **CURRENT TRENDS IN THE ELABORATION OF THE HYDROGEOLOGICAL ATLASES PUBLISHED FOR THE GEOLOGICAL SURVEY OF SPAIN** (Spain)
6. K. Ishida **INFORMATION ANALYSIS AND RISK MANAGEMENT BY CARTOGRAPHY** (Japan)

August 8th, 12:30 – 14:00 (Room: Saturn)

Oral session 6-2: Thematic atlases – Cultural

Chairmen: R. McMaster / S.V. Tchistov

1. G.N. Ozerova, T.A. Andreyeva **THE FIRST NATIVE LAND ATLAS OF RUSSIAN ORTHODOXY** (Russia)
2. D. Yu, R. Huang, J. Qiao, L. Zhang, L. Dong **STUDY ON THE EDITING AND DESIGNING (NATIONAL WOMEN ATLAS)** (China)
3. M. Myridis, N. Karanikolas, P. Lafazani, D. Ramnalis **THE CULTURAL NETWORKS OF EUROPE TOWARDS A EUROPE OF CITIZENS AND CIVILIZATIONS** (Greece)
4. Ju.A. Vedenin, V.K. Bronnikova, A.I. Elchaninov **VALUE OF HERITAGE MAPS IN THE STUDY AND PRESERVATION OF NATURAL AND HISTORICAL-CULTURAL ENVIRONMENT** (Russia)

August 8th, 15:00 – 16:30 (Room: Saturn)

Oral session 6-3: Thematic atlases – Demographic

Chairmen: J. Mladek / L. Pivak

1. A. Pueyo, J.L. Calvo, M. Zuciga, M. Sebastian, J.M. Jover, P. Sanchez-Ortiz, C. Romera **DEMOGRAPHIC ANALYSIS IN THE NATIONAL ATLAS OF SPAIN BY MEANS OF GRAVITATIONAL MODELS** (Spain)
2. L.I. Pivak **POLITICAL AND ADMINISTRATIVE ATLAS OF UKRAINE** (Ukraine)
3. J. Mladek, J. Marencakova **POPULATION ATLAS OF SLOVAKIA** (Slovakia)

August 8th, 17:00 – 18:30 (Room: Saturn)

Oral session 6-4: Thematic atlases – Other

Chairmen: T. Trainor / L. Rudenko

1. B. Piatti, L. Hurni **TOWARDS A EUROPEAN ATLAS OF LITERATURE: DEVELOPING THEORIES, METHODS, AND TOOLS IN THE FIELD OF “LITERARY GEOGRAPHY”** (Switzerland)
2. Yu.A. Izrael, E.V. Kvasnikova **RADIOACTIVE CONTAMINATION IN THE ATLAS CARTOGRAPHY** (Russia)
3. Ju.M. Yurin **MAP FOR CREATING TOURIST AND RECREATION SPECIAL ECONOMIC ZONES AT THE BAIKAL LAKE BANK** (Russia)
4. J.V. Gavrilov, O.N. Nikolaev, L.A. Romashova **RADIATION RISK MAPPING FOR HEALTH AND LIVING CONDITIONS OF THE POPULATION** (Russia)
5. Yu. Artemyev **THE OVERVIEW OF MODERN NATIONAL ROAD ATLASES** (Russia)

August 9th, 10:30 – 12:00 (Room: Saturn)

Oral session 7: City atlases

Chairmen: H. Asche / A. Elchaninov

1. Y.F. Liu, Y. Hou, Y. Liu **THE ATLAS OF BAOAN URBAN CONSTRUCTION AND DEVELOPMENT OF SHENZHEN CITY** (China)
2. A. Kindler, G. Azocar, C. Vega **THE SOCIAL AND ENVIRONMENTAL ATLAS OF THE METROPOLITAN AREA OF CONCEPCION/CHILE - AN INSTRUMENT FOR MONITORING AND PLANNING OF URBAN DEVELOPMENT** (Germany)
3. V.S. Revjakin, I.N. Rotanova **THE COMPLEX ATLAS OF BARNAUL CITY** (Russia)

August 9th, 12:30 – 14:00 (Room: Saturn)

Oral session 8: Atlases database issues

Chairmen: R. Sieber / E. Komissarova

1. A.N. Krajukhin, G.V. Pozdnjak **ATLAS CARTOGRAPHY AS DATABASE OF THE TERRITORIES STABLE DEVELOPMENT** (Russia)
2. G.H. Liu, R. Peng, W.J. Gao, Y. Chen, L.X. Guo **THE KEY TECHNIQUE AND APPLICATION OF CONSTRUCTING NOTICE TO MARINERS DATABASE** (China)
3. Z. He, J.P. Liu, J. Bai **RESEARCH ON «THE ELECTRICAL ATLAS OF REGIONAL DEVELOPMENT IN CHINA»** (China)

16. COPYRIGHT AND CARTOGRAPHY, ACCESS TO CARTOGRAPHIC INFORMATION

Co-chairs: Raisa Yakovleva, Yuriy Artemyev

August 6th, 10:30 – 12:00 (Room: Saturn)

Oral session 1: Copyright and mapping

Chairmen: D.R.F. Taylor / R. Yakovleva

1. M. Rice **AN ANALYSIS OF INTELLECTUAL PROPERTY PROTECTION TECHNIQUES FOR DIGITAL CARTOGRAPHIC DATA ADAPTED FROM CARTOGRAPHIC COPYRIGHT TRAPS USED ON PRINTED MAPS** (USA)
2. D.R.F. Taylor **ARCHIVING AND PRESERVING CARTOGRAPHIC DATA: THE CYBERCARTOGRAPHIC ATLAS OF ANTARCTICA** (Canada)
3. R. Yakovleva **THEORY AND PRACTICE OF GEOGRAPHIC MAP LEGAL PROTECTION AS OBJECTS OF COPYRIGHT IN THE RUSSIAN FEDERATION** (Russia)

August 6th, 12:30 – 14:00 (Room: Saturn)

Oral session 2: Copyright in commercial mapping aspects

Chairmen: W. Wolfer / Yu. Artemyev

1. W. Wolfer **SETTING UP A FRAMEWORK FOR OPTIMIZING THE PRODUCTION ENVIRONMENT IN COMMERCIAL MAP PUBLISHING** (Germany)
2. Yu. Artemyev **THE MODERN STAGE OF PRIVATE CARTOGRAPHY IN RUSSIA** (Russia)
3. A.V. Borodin **PRIVATIZATION PERSPECTIVES OF GEODESY AND CARTOGRAPHY ENTERPRISES OF THE RUSSIAN FEDERATION** (Russia)

August 6th, 15:00 – 16:30 (Room: The main hall)

Poster session:

Chairmen: C.Q. Zhu / Yu. Artemyev

1. L.X. Guo, R. Peng, H.R. Chen, J. Jin **DESIGN AND IMPLEMENT OF CHINESE DIGITAL CHARTS ISSUE AND MANAGEMENT SYSTEM** (China)
2. F. Cheng, Z. Tian, J. Guo, G.X. Chen **COUNTER-TAMPERING OF RASTER CHART DATA BASED ON DIGITAL WATERMARK** (China)
3. C.Q. Zhu, C.S. Yang **THE DIGITAL WATERMARKING METHOD OF VECTOR GEO-DATA BASED ON WAVELET TRANSFORMATION** (China)

17. VIRTUAL MODELS, 3D AND GEOVISUALIZATION IN CARTOGRAPHY

Chair: Menno-Jan Kraak

August 7th, 15:00 - 16:30 (Room: Evening Space 1)

COMMISSION MEETING

August 5th, 15:00 – 16:30 (Room: Galaxy 2)

Oral session 1-1: Visualization theory

Chairmen: M.J. Kraak / V. Moskalenko

1. S.I. Fabrikant, D.R. Montello, S. Rebich **SEEING THROUGH SMALL MULTIPLE MAP DISPLAYS** (Switzerland, USA)
2. T. Opach **AN EXPERIMENTAL RESEARCH OF EFFECTIVENESS OF TEMPORAL ANIMATED MAPS** (Poland)
3. X. Chen, I. Bishop **ENHANCING COMMUNITY UNDERSTANDING OF LAND COVER CHANGE USING GEO-VISUALISATIONS** (Australia)
4. A.C. Robinson **SYNTHESIZING RESULTS IN GEOVISUALIZATION** (USA)

August 7th, 12:30 – 14:00 (Room: The main hall)

Poster session:

Chairmen: A. Buckley / A. Suvorov

1. R. Feciskanin **OPTIMALIZATION OF TRIANGULAR IRREGULAR NETWORKS FOR MODELING OF GEOMETRICAL STRUCTURE OF GEORELIEF** (Slovakia)
2. J. Wang, C. Li **BUILDING 3D DIGITAL CITY FROM UAV IMAGES** (China)
3. K. Huth, O. Schnabel, G. Schaab **SVG-BASED VISUALIZATION OF GEODATA QUALITY. TAKING THE KAKAMEGA-NANDI FOREST AREA AS EXAMPLE** (Germany, Switzerland)
4. B. Bitters **VIRTUAL ENVIRONMENTAL DATABASES: A NEW FORM OF CARTOGRAPHIC EXPRESSION** (USA)

5. U. Pyysalo, T. Sarjakoski, L.T. Sarjakoski **3D-VISUALIZATION OF AIRBORNE LASER DERIVED ELEVATION MODEL FOR MOBILE DEVICES** (Finland)
6. X. Wu, Q. Du, F. Ren **RESEARCH OF REGISTRATION METHOD IN VIDEO-BASED AUGMENTED REALITY** (China)
7. J. Guo, Z. Tian, F. Cheng **RESEARCH ON THE VISUALIZATION EXPRESSION OF THE INVISIBLE DISPERSIVE FEATURE** (China)
8. D.K. Hoai **AN APPROACH TO VISUALIZE BIG VOLUME OF VIDEO DATA** (Vietnam)

August 7th, 15:00 – 16:30 (Room: Galaxy 2)

Oral session 1-2: Visualization theory

Chairmen: S. Fabrikant / M. Buchroithner

1. Z.-Q. Wu, D.-M. Zhao **RESEARCH ON VISION VARIABLE OF VIRTUAL TERRAIN ENVIRONMENT** (China)
2. S. Maass, M. Jobst, J. Doellner **USE OF DEPTH CUES FOR THE ANNOTATION OF 3D CARTOGRAPHIC ENVIRONMENTS** (Germany, Austria)
3. S.A. Deitrick **UNCERTAINTY VISUALIZATION AND DECISION MAKING: DOES VISUALIZING UNCERTAIN INFORMATION CHANGE DECISIONS?** (USA)
4. H.A. Asamer, M.M. Mayer, A.R. Riedl **CARTOGRAPHIC REQUIREMENTS FOR VISUALIZATION AND PROCESSING OF REAL-TIME DATA** (Austria)

August 7th, 17:00 – 18:30 (Room: Galaxy 2)

Oral session 2: Visualization - time

Chairmen: M.J. Kraak / G. Andrienko

1. N. Andrienko, G. Andrienko **SCALABLE METHODS FOR VISUAL ANALYSIS OF MASSIVE MOVEMENT DATA** (Germany)
2. V. Vozenilek, J. Kanok **VISUALIZATION MAPPING METHODS FOR INTERPRETATION OF PHENOMENON DYNAMICS** (Czech Republic)
3. X. Xia Li, M.J. Kraak, Z. Ma **TOWARDS A PROBLEM OF VISUAL REPRESENTATIONS TO EXPRESS UNCERTAINTY IN TEMPORAL GEODATA** (Netherlands)
4. M.J. Kraak, P. Madzudzo **SPACE TIME VISUALIZATION FOR EPIDEMIOLOGICAL RESEARCH** (Netherlands)
5. A. Villacorta, J. Dillemath **GEOVISUALIZATION FOR THE SPATIAL, TEMPORAL AND SEMANTIC CONTEXT OF NEWS** (USA)

August 8th, 10:30 – 12:00 (Room: Galaxy 2)

Oral session 3: Visualization – alternative views

Chairmen: P. Ahonen-Rainio / A. Malinnikov

1. Z. Koziel **THE THEORY OF GEOCOMPOSITIONS AS VIDEOGRAPHIC REPRESENTATIONS** (Poland)
2. M. Lacayo, A. Skupin **A GIS-BASED VISUALIZATION MODULE FOR SELF-ORGANIZING MAPS** (USA)
3. C. Schroder, W. Mackaness, F. Reitsma **QUANTIFYING URBAN VISIBILITY USING 3D SPACE SYNTAX** (United Kingdom)

August 8th, 12:30 – 14:00 (Room: Galaxy 2)

Oral session 4-1: Visualization – VR technology

Chairmen: J. Dykes / A. Suvorov

1. S. Gao **INTERPOLATION, CONTOUR TRACING AND 3D VISUALIZATION OF URBAN BENCHMARK LAND-PRICE BASED ON DISTRIBUTE DATA** (China)

2. K. Lee **ARCHITECTURE AND ITS PROTOTYPE IMPLEMENTATION FOR 3D CARTOGRAPHIC MAPPING ON MOBILE 3D AND WEB 3D ENVIRONMENTS** (South Korea)
3. O. Waelder, M.F. Buchroithner **STEREO VIEWING OF LENTICULAR FOIL DISPLAYS: A GEOMETRIC ANALYSIS** (Germany)

August 9th, 10:30 – 12:00 (Room: Galaxy 2)

Oral session 4-2: Visualization – VR technology

Chairmen: A. MacEachren / V. Moskalenko

1. E.S. Malinverni, G. Cassatella, G.A. Gentile **3D CITY MODEL GEOVISUALIZED ON GOOGLE-EARTH** (Italy)
2. C.N. Feuerherdt, W. Cartwright, M. Black **MOBILE OUTDOOR AUGMENTED REALITY FOR LANDSCAPE SCENARIO VISUALIZATION** (Australia)
3. C. Zenner, E. Schmeer, M. Wolff, M. Jobst **HIGH-RESOLUTION REMOTE SENSING ELEVATION MODELS FOR APPROPRIATE USE IN 3D LANDSCAPE VISUALISATION** (Germany, Austria)
4. S. Bleisch, S. Nebiker **MORE THAN RENDERING – PRINTED TOURIST MAPS AND AN INTERACTIVE 3D INFORMATION SYSTEM FROM HIGHLY DETAILED 3D LANDSCAPE MODELS** (Switzerland)

August 9th, 12:30 – 14:00 (Room: Galaxy 2)

Oral session 5: Visualization applications

Chairmen: T. Midtbø / P. Jordan

1. M.A. Bazina, S.V. Erukov, A.L. Mjasnikov **SIMULATION METHODS OF SYMBOLS AND VARIOUS TERRAIN MODELS FOR VISUAL IMPROVEMENT OF MAPPING** (Russia)
2. C. Monti, R. Brumana, F. Prandi, S. Musumeci **BUILDING AND SHARING ON THE WEB 3D GIS CITY MODEL RELATED TO HISTORICAL CARTOGRAPHIC VIEWS** (Italy)
3. S. Kemec, H.S. Duzgun **INTEROPERABILITY IN 3D CITY MODELS DEVELOPED FOR EARTHQUAKE VULNERABILITY VISUALIZATION** (Turkey)

18. HISTORY OF CARTOGRAPHY

Chair: Alexey Postnikov

Vice-chair: Dalia Varanka

August 6th, 17:00 - 18:30 (Room: Evening Space 1)

COMMISSION MEETING

August 5th, 15:00 – 16:30 (Room: Neptune)

Oral session 1: History of cartographic techniques

Chairmen: D. Varanka / A. Postnikov

1. S. Raeber, L. Hurni **HANDMADE TERRAIN MODELS** (Switzerland)
2. J.E. Mersey **THE HISTORY OF CHOROPLETH MAPPING** (Canada)
3. L. Zinchuk **THE FIRST ATTEMPTS OF CARTOGRAPHIC SIMBOLS USING IN THE EARLY RUSSIAN CARTOGRAPHY** (Russia)

August 5th, 17:00 – 18:30 (Room: Neptune)

Oral session 2: Mathematical basis of maps

Chairmen: D. Varanka / N. Komedchikov

1. A.N. Min **THE MATHEMATIC BASIS OF ANCIENT MAPS IN CHINA AND ITS GEOGRAPHICAL SPACE-DIMENSIONAL REPRESENTATION** (China)
2. J. Benavides, J. Nerbonne **APPROACHING QUANTITATIVE ACCURACY IN EARLY DUTCH CITY MAPS** (Netherlands)
3. P.M.L. Menezes, M.C. Fernandes **MAPPING CHANGES OF RIO DE JANEIRO CITY – BRAZIL: MAP PROJECTIONS AND GEODETIC SYSTEMS USED** (Brazil)

August 6th, 10:30 – 12:00 (Room: Neptune)

Oral session 3: National and military cartography

Chairmen: R. Sossa / A. Postnikov

1. L. Kildushevskaya, M. Orlov **CYRILLOV’S FIRST ATLAS OF THE RUSSIAN EMPIRE AS A UNIQUE MONUMENT OF THE 18TH CENTURY RUSSIAN CARTOGRAPHY** (Russia)
2. N.E. Kotelnikova, L.K. Kildushevskaya **THE PRINTED AND HAND-WRITTEN MONUMENT “BOOK OF MARS OR MARTIAL DEEDS ...” DATING FROM THE PETRINE TIMES** (Russia)
3. P. Collier **THE MILITARY MAP OF THE UNITED KINGDOM AND ITS IMPACT ON THE DESIGN OF ORDNANCE SURVEY TOPOGRAPHIC MAPS** (United Kingdom)
4. A.V. Psjanchin **ETHNIC CARTOGRAPHY IN THE COMMISSION ON STUDYING THE TRIBAL STRUCTURE OF THE RUSSIAN POPULATION (1917 – 1930)** (Russia)
5. Á. Papp-Váry **DISTORTED HIKING MAPS IN HUNGARY BETWEEN 1975 – 1990** (Hungary)

August 6th, 12:30 – 14:00 (Room: Neptune)

Oral session 4: Cartography, exploration, and geographical knowledge

Chairmen: D. Varanka / L. Zinchuk

1. M. Slukan Altic **CROATIAN EXPLORER DRAGUTN LERMAN (1863-1918) AND HIS CONTRIBUTION IN THE MAPPING OF CENRAL AFRICA** (Croatia)
2. A. V. Postnikov **CARTOGRAPHIC SOLUTION OF THE PROBLEM: ARE AMERICA AND ASIA JOINED? (THE FIRST PART OF THE EIGHTEENTH CENTURY)** (Russia)
3. L. Szaniawska **MAP-DOCUMENTED HISTORY OF EXPLORATION OF SIBIR EXEMPLIFIED BY SELECTED WEST-EUROPEAN 16TH AND 17TH CENTURY MAPS** (Poland)
4. O.A. Lazebnik, O.S. Romanova **CARTOGRAPHIC RESULTS OF G.L. MAJDEL’S EXPEDITION IN THE YAKUT PROVINCE IN 1868 – 1870** (Russia)

August 7th, 15:00 – 16:30 (Room: Neptune)

Oral session 5: Cartography and geographical change

Chairmen: P.M.L. Menezes / L. Zinchuk

1. P.M.L. Menezes, B.S. Miceli, V.F. Godoy, M.C. Fernandes **RIO DE JANEIRO CITY – BRAZIL HISTORICAL CENTER EVOLUTION UNDER A CARTOGRAPHIC APPROACH** (Brazil)
2. G. Enherning **TWO DIFFERENT STRUCTURES MEET ON THE GOTEBORG DONATION LAND 1866-CA. 1920: GIS AND HISTORICAL MORPHOLOGICAL ANALYSIS EXPLORE THE TRANSFORMATIONS** (Sweden)

3. P. Foret **“DESICCATION OF THE EARTH”?** THE CLIMATE CHANGE THAT SURVEY EXPEDITIONS IN CHINESE CENTRAL ASIA MAPPED FROM THE 1900’S TO THE 1930’S (Switzerland)
4. L.R. Kozlov **THE TERRITORY OF BELARUS IN THE ANTIQUE MAPS** (Belarus)

August 7th, 17:00 – 18:30 (Room: Neptune)

Oral session 6: Carto-bibliography and textual materials

Chairmen: N. Kotelnikova / R. Sossa

1. N.E. Kotelnikova **LAND SURVEYING HAND WRITTEN PLANS IN THE STOCKS OF THE MANUSCRIPT DEPARTMENT OF THE RUSSIAN STATE LIBRARY** (Russia)
2. R.I. Sossa **BIBLIOGRAPHY OF LITERATURE FROM THE HISTORY OF UKRAINE TERRITORY MAPPING** (Ukraine)
3. R.I. Sossa, O.V Onyschak **TOMASZ NIEWODNICHACSKI COLLECTION OF THE ANCIENT MAPS. THE EXPOSITION IMAGO UKRAINAE. ANCIENT MAPS OF UKRAINE FROM T. NIEWODNICHACSKI COLLECTION** (Ukraine)
4. S.V. Sviridenko, T.M. Petrova **RUSSIAN PRINTED MAP OF THE 18TH CENTURY** (Russia)
5. Á. Papp-Váry **THE FIRST HANDBOOK DEALING ONLY WITH CARTOGRAPHY WRITTEN BY SALISHCHEV** (Hungary)

August 8th, 10:30 – 12:00 (Room: Neptune)

Oral session 7: Collections and comparative map studies

Chairmen: D. Varanka / L. Zinchuk

1. M. Gubina **EXAMPLE OF THE TIME AND MOVEMENT REFLECTION IN RUSSIAN MAPS OF THE XVIII CENTURY** (France)
2. I. Kljajic, M. Lapaine **A COMPARISON OF RELATED CARTOGRAPHIC REPRESENTATIONS OF CROATIAN CITIES FROM THE 16TH CENTURY** (Croatia)
3. C.J.B. Santos **GEOGRAPHIC NAMES OF THE STATE OF RIO DE JANEIRO (BR), FROM CENTURY XVI TO CENTURY XXI: A BOARDING DIACRONIC** (Brazil)
4. V. Gurkin **ARE THERE ANY RUSSIAN SOURCES OF ADAM OLEARIUS MAP?** (Russia)

August 8th, 12:30 – 14:00 (Room: Neptune)

Oral session 8: Cartography and colonial conflict

Chairmen: E. Liebenberg / V. Kusov

1. M. Tchindjang, S.A. Abossolo, A. Bopda, F.V. Menga, Z. Fogwe Nji **MAPPING OF BUILDING AND FLUCTUATION OF CAMEROON FRONTIER FROM 1894 TO 1960** (Cameroon)
2. J.P. Nghonda **CARTOGRAPHY AS DIPLOMATIC TOOL IN THE TERRITORIAL FORMATION OF KAMERUN FROM 1884 TO 1916** (Cameroon)
3. E.A. Mare, P. Dubourg-Glatigny **THE PRACTICE OF PERSPECTIVE IN THE NETHERLANDS AND ITS APPLICATION IN THE AREAS OF LAND SURVEYING AND CARTOGRAPHY AT THE CAPE OF GOOD HOPE DURING THE 17TH CENTURY AS A MEANS OF APPROPRIATING COLONIAL LAND** (South Africa, France)

4. E. Liebenberg **THE USE OF COMPILATION MAPS IN THE ANGLO-BOER WAR, 1899-1902** (South Africa)

August 8th, 15:00 – 16:30 (Room: Neptune)

Oral session 9: Cartographic methods and post-colonial study

Chairmen: E. Liebenberg / V. Kusov

1. L.A. Beser de Deus, P.M.L. Menezes **IMAGES OF THE PAST: COLONIAL GUANABARA BAY AND THE EUROPEAN MILITARY CARTOGRAPHY** (Brazil)
2. M. Tchindjang, P. Atangana, J. Amougou, A. Bopda, E. Esseck, P.B.E. Messi **ADMINISTRATIVE EVOLUTION OF CAMEROON DURING COLONIAL PERIOD (1894-1960): AND IT'S EFFECTS ON NOWADAYS ADMINISTRATIVE ORGANIZATION** (Cameroon)
3. P.M.L. Menezes, V.F. Godoy, V.M.G. Lepore, M.C. Fernandes **FUNDAO ISLAND AND SURROUNDS: GEOGRAPHICAL EVOLUTION UNDER A HISTORICAL-CARTOGRAPHIC APPROACH** (Brazil)
4. L. Lovison-Golob **EVOLUTIONARY HISTORICAL CARTOGRAPHY** (USA)

August 8th, 17:00 – 18:30 (Room: Neptune)

Oral session 10: Position distortion and accuracy of historical maps

Chairmen: E. Livieratos / N. Komedchikov

1. F. Guerra, A. Adami, E. Livieratos, L. Fregonese **DIGITAL REPRESENTATIONS AND ANALYSIS OF DEFORMATIONS INDUCED IN MAP SUPPORTING MATERIALS** (Italy, Greece)
2. A. Tsorlini, E. Livieratos **DIGITAL APPROACHES IN ELIMINATING THE HIGHER ORDER SYSTEMATIC EFFECTS IN PTOLEMY'S GEOGRAPHIA LONGITUDE AND LATITUDE DIFFERENCES** (Greece)
3. P. Seed, G. Diaz **MODERN CARTOGRAPHIC TOOLS APPLIED TO HISTORICAL NAUTICAL CHARTS** (USA)
4. A. Koussoulakou, E. Livieratos **VERMEER'S MAPS REVISITED. A DIGITAL APPROACH REFINEMENT** (Greece)

August 9th, 10:30 – 12:00 (Room: Neptune)

Oral session 11: Cartography, visualization, and cultural heritage

Chairmen: E. Livieratos / A. Postnikov

1. A.P. Pucher, K.K. Kriz, M.K. Kinberger **CULTURAL HISTORY INFORMATION SYSTEM (CHIS) OF THE WESTERN HIMALAYA - CARTOGRAPHIC VISUALIZATION COMMUNICATING INTERDISCIPLINARY RESEARCH** (Austria)
2. M. Pazarli, N. Ploutoglou, K. Papadopoulos, A. Tsorlini, E. Livieratos **DIGITAL APPROACHES TO RIGHAS VELESTINLIS' CHARTA, THE 18TH CENTURY CARTOGRAPHIC MONUMENT OF GREEK CULTURAL HERITAGE** (Greece)
3. E.P. Ploutoglou, M. Pazarli, Ch. Boutoura **THE PETR IVANOVICH SEVASTIANOV'S 19TH CENTURY HOLY MT ATHOS PLANS EMBEDDED IN A MODERN DIGITAL 3-D LOCAL CARTOGRAPHIC ENVIRONMENT** (Greece)
4. C. Balletti, P. Falchetta **FRA MAURO'S DIGITAL WORLD MAP: A NEW TOOL FOR DIGITAL CARTOGRAPHIC HERITAGE** (Italy)
5. A. Suvorov, A. Elchaninov **MAPS OF HERITAGE AND PROBLEMS OF VISUALIZATION IN GIS** (Russia)

August 9th, 12:30 – 14:00 (Room: Neptune)

Oral session 12: Cartographic heritage and public dissemination

Chairmen: E. Livieratos / A. Postnikov

1. M. Jobst, B. Wurm **THE SUCCESS OF CARTOGRAPHIC HERITAGE DISSEMINATION BASED ON PUBLIC ACCEPTANCE** (Austria)
2. G. Zimmermann, M.F. Buchroithner, W.G. Koch **THE MAP FORUM SAXONY: AN OPTIMAL COMMENTED LIBRARY OF HISTORICAL MAPS** (Germany)
3. J. Cajthaml, J. Krejci **USAGE OF OLD MAPS AND THEIR DISTRIBUTION WITHIN THE FRAME OF WEB MAP SERVICES** (Czech Republic)
4. V.S. Kusov **RUSSIAN GEOGRAPHICAL DRAWING** (Russia)
5. L. Dietze, A. Kunz, A. Zipf **THE «HISTORICAL GIS GERMANY» – A TIME ENABLED INFORMATION SYSTEM FOR GERMANY AND CENTRAL EUROPE 1820-1914** (Germany)

19. WORLD AND AERONAUTICAL CARTOGRAPHY AND MILITARY CARTOGRAPHY

Chair: Yaïves Ferland

August 7th, 10:30 – 12:00 (Room: Venus)

Oral session: World and aeronautical cartography and military cartography

Chairmen: Y. Ferland / N. Triukhan

1. A.P. Queiroz **STRATEGIC FUNCTIONS OF TOPOGRAPHIC MAPS** (Brazil)
2. M.O. Triukhan, V.M. Triukhan **CARTOGRAPHIC SUPPORT OF THE MARITIME DELIMITATION** (Ukraine)
3. Y. Ferland **TOPONYMIC STANDARDIZATION: PROBLEMS FOR MILITARY AND SECURITY USAGES** (Canada)
4. L.A. Beser de Deus, P. M. Leal de Menezes **IMAGES OF THE PAST: COLONIAL GUANABARA BAY AND THE EUROPEAN MILITARY CARTOGRAPHY** (Brazil)

20. MOUNTAIN CARTOGRAPHY

Chair: Lorenz Hurni

Vice-chair: Karel Kriz

August 7th, 17:00 - 18:30 (Room: Evening Space 1)

COMMISSION MEETING

August 8th, 15:00 – 16:30 (Room: Galaxy 1)

Oral session 1: Applications

Chairmen: L. Hurni / M. Buchroithner

1. K. Kriz, M. Kinberger **INFORMATION TRANSFER AND CARTOGRAPHIC DESIGN ISSUES FOR AVALANCHE RISK MAPPING** (Austria)
2. M. Buchroithner, T. Gruendemann, R. Meissner **A NEW MAP OF THE "HIGHEST MOUNTAIN" OF THE WORLD, MAUNA LOA ON HAWAII** (Germany)
3. D. Petrovic **MOUNTAIN TRACKS CAPTURING** (Slovenia)
4. G. Brunson, P.W.K. Booth **MAPPING GEOLOGICAL FAULT STRUCTURES IN THE CAPE FOLD BELT MOUNTAINS – A CARTOGRAPHIC APPROACH** (South Africa)

August 8th, 15:00 – 18:30 (Room: Galaxy 1)

Poster session:

Chairmen: L. Hurni / M. Buchroithner

1. M.F. Buchroithner **BETWEEN GOBI AND HIMALAYA: AN INSTRUCTIONAL FILM ABOUT THE CARTOGRAPHIC OEVRE OF SVEN HEDIN** (Germany)

August 8th, 17:00 – 18:30 (Room: Galaxy 1)

Oral session 2: Special issues

Chairmen: K. Kriz / A. Vakhtanov

1. D. Loisios, N. Tzelepis, B. Nakos **A METHODOLOGY FOR CREATING ANALYTICAL HILL-SHADING BY COMBINING DIFFERENT LIGHTING DIRECTIONS** (Greece)
2. L. Hurni, T. Dahinden **DEVELOPMENT AND QUALITY ASSESSMENT OF ANALYTICAL ROCK DRAWINGS** (Switzerland)
3. J. Trau, L. Hurni **POSSIBILITIES OF INCORPORATING AND VISUALISING UNCERTAINTY IN NATURAL HAZARD PREDICTION MAPS** (Switzerland)
4. C. Lienert, R. Weingartner, L. Hurni **REAL-TIME CARTOGRAPHY IN OPERATIONAL HYDROLOGY** (Switzerland)

21. TOURIST CARTOGRAPHY

Chair: Yuriy Artemyev

August 7th, 12:30 - 14:00 (Room: Evening Space 1)

COMMISSION MEETING

August 6th, 12:30 – 14:00 (Room: Galaxy 1)

Oral session 1: Tourist maps production and using

Chairmen: S. Mas-Mayoral / A.V. Chernishev

1. J. Sancho, F. Escobar, M. Carbajo **SPANISH TOURIST ATLAS FOR THE RURAL AND NATURAL ENVIRONMENT** (Spain)
2. D. Forrest **DEVELOPMENT OF A CLASSIFICATION SYSTEM FOR TOURIST MAPS** (United Kingdom)
3. A.V. Chernishev, M.O. Chernicheva **SPECIAL FEATURES OF TOURIST MAPMAKING IN RUSSIA** (Russia)
4. K. Kalamucki, M. Pason **THE USE OF TOURIST MAPS FOR THE STUDIES OF TOURIST INFRASTRUCTURE DEVELOPMENT BASED ON THE EXAMPLE OF THE POLISH TATRAS** (Poland)

August 6th, 15:00 – 16:30 (Room: Galaxy 1)

Oral session 2: Orienteering maps problems

Chairmen: L. Zentai / R.V. Atojan

1. L. Zentai **NEW TECHNOLOGIES IN MAKING ORIENTEERING MAPS** (Hungary)
2. G. Gartner, R. Ditz **LASER SCANNING DATA FOR CARTOGRAPHIC DATA MODELLING OF ORIENTEERING MAPS** (Austria)
3. D. Petrovic **ADVENTURE RACES AND ORIENTEERING MAPS** (Slovenia)
4. R.V. Atojan **TECHNIQUES OF PANORAMIC MAP-PICTURE CREATION ON THE BASE OF THE LOCALITY PERSPECTIVE DRAWING** (Russia)

August 6th, 17:00 – 18:30 (Room: Galaxy 1)

Oral session 3: New field of tourist mapping

Chairmen: A.H. Atmadilaga / V.V. Pogorelov

1. L.A. Plastinin, N.V. Kotelnikova, B.N. Olzoev **GEOINFORMATION RECREATION AND TOURISM MAPPING OF FRONTIER NATIONAL**

- PARKS «TUNKINSKIY» (RUSSIA) AND «HUBSUGULSKIY» (MONGOLIA)**
(Russia)
2. Z. Wu, Y. Chen **ONLINE EXPERIMENT OF TOURIST WEB MAP SYMBOL**
(China)
 3. S. Martha, A.H. Atmadilaga **INDONESIAN GEOGRAPHY EXPEDITION 2006**
(Indonesia)
 4. V.V. Pogorelov **MAPS FOR TOURISM** (Russia)

22. CARTOGRAPHY FOR CHILDREN, EDUCATIONAL PRODUCTS

Chair: Patrick Wiegand

Vice-chair: Jesús Reyes

August 7th, 17:00 - 18:30 (Room: Evening Space 2)

COMMISSION MEETING

August 6th, 10:30 – 12:00 (Room: Galaxy 5)

Oral session 1: Mapping for school education

Chairmen: J.J. Reyes Nunez / G.K. Polikarpova

1. T.L. Bandrova **CARTOGRAPHY – CLOSE TO USERS: A TECHNOLOGY FOR COMPILING OF SCHOOL ATLASES FOR EDUCATION ON GEOGRAPHY IN BULGARIA** (Bulgaria)
2. G.K. Polikarpova, L.A. Shilkina **EXPERIENCE OF CREATION THE SERIES OF SCHOOL WALL THEMATIC MAPS OF RUSSIA AND ITS REGIONS FOR GENERAL EDUCATIONAL ESTABLISHMENTS** (Russia)
3. L.M.B. Barros, M.M.S. Decanini **INTERACTIVE SCHOOL ATLAS: DESIGN AND PRODUCTION** (Brazil)
4. J.A. Nieto Calmaestra, A. Fajardo De La Fuente **UNE POLITIQUE DE DIFFUSION DE CARTOGRAPHIE A LA COMMUNAUTE EDUCATIVE DE ANDALOUSIE (ESPAGNE)** (Spain)
5. M.A. Campos **THE USE OF CARTOGRAPHIC MATERIAL IN HIGH SCHOOL: DIAGNOSIS AND CONSEQUENCES** (Argentina)

August 6th, 12:30 – 14:00 (Room: Galaxy 5)

Oral session 2: Experience in children cartography

Chairmen: T. Bandrova / T.E. Hankebo

1. J.J. Reyes Nunez, E. Galle, C.E. Juliarena de Moretti, A.M. Garra, C.A. Rey, M.V. Alves de Castro, A.S. Dibiase **UNDERSTANDING RELIEF METHODS IN ARGENTINE AND HUNGARIAN SCHOOLS: EXPERIENCES IN BOTH COUNTRIES** (Hungary, Argentina)
2. T.E. Hankebo **THE CONCEPT OF REGIONAL SCHOOL ATLASES FOR ETHIOPIAN SCHOOLS** (Russia)
3. V.V. Molochko **METHODS OF GEOGRAPHY TEACHER ATLAS DESIGN** (Ukraine)
4. M. Myridis, A. Christodoulou, E. Kalyva, N. Karanikolas, P. Lafazani **CARTOGRAPHY AND CHILDREN. DESIGNING A MULTIMEDIA EDUCATIONAL TOOL** (Greece)
5. K. Gurjanovaite, G. Beconyte **CARTOGRAPHIC ANALYSIS OF GENERAL GEOGRAPHIC ELEMENTS IN CHILDREN MENTAL MAPS** (Lithuania)

August 6th, 15:00 – 16:30 (Room: The main hall)

Poster session: Experience in children cartography

Chairmen: E. Zapatero Cabañas / T.E. Hankebo

1. E. Zapatero Cabañas, J. Manuel Ortiz Santos **MAPS PRE-SELECTION AT THE ANNUAL SOLIDARITY WEEK OF COOPERATION AND HUMAN RIGHTS COUNCIL OF ALCALA DE HENARES TO ENCOURAGE THE PARTICIPATION OF THE STUDENTS AT PRIMARY AND SECONDARY SCHOOL IN BARBARA PETCHENIK CHILDREN'S WORLD MAP COMPETITION BY NON GOVERNMENTAL ORGANIZATIONS (COORDINATED BY ACTIONAID GROUP OF ALCALA)** (Spain)
2. I.L. Drohushevska **GEOGRAPHY ELECTRONIC TEACHING COURSE OF CONTINENTS AND OCEANS FOR THE 7TH FORM** (Ukraine)
3. V.S. Tikunov, M.N. Gubanov, N.M. Kiselyova, E.C. Nokelajnen, N.N. Talskaja, L.F. Janvareva **NEW SERIES OF SCHOOL GEOGRAPHIC ATLASES AND MAPS** (Russia)
4. E.A. Brovko, S.A. Efimov, I.A. Mirtova, A.I. Lazutkin **WORKING OUT TEACHING AND METHODIC MATERIALS «SPACE NATURAL STUDY AND GEOGRAPHY» FOR CARTOGRAPHIC EDUCATION PERFECTION IN RUSSIA** (Russia)
5. J.J. Reyes Nunez **WEB COLLECTION PRESENTING MAP CONCEPTS FOR HUNGARIAN PUPILS** (Hungary)
6. T. Saint Pierre **THE IMPORTANCE OF USING CONTOUR LINES IN TEACHING** (Argentine)

23. MAPS FOR BLIND AND PARTIALLY SIGHTED PEOPLE

Co-chairs: Jonathan Rowell, Dan Jacobson

August 7th, 10:30 - 12:00 (Room: Evening Space 2)

COMMISSION MEETING

August 7th, 12:30 – 14:00 (Room: Galaxy 5)

Oral session 1: Tactile map use, reading & design: cognitive perspectives

Chairmen: J. Rowell / K. Shingareva

1. M.M. Lawrence, A.K. Lobben **EMPLOYING FMRI TO INVESTIGATE RELATIONSHIPS BETWEEN SPATIAL ABILITIES AND TACTILE MAP USE TASKS** (USA)
2. A.K. Lobben, M.M. Lawrence, S. Fickas **THE RELATIONSHIP BETWEEN PREDICTOR TASK PERFORMANCE AND NAVIGATIONAL TACTILE MAP USE** (USA)
3. L. Hasty, D. Spence **THE DEVELOPMENT OF GUIDELINES AND STANDARDS FOR TACTILE GRAPHICS IN NORTH AMERICA** (USA)
4. Alejandra Coll E., F.P. Silva **IMPACT OF TACTILE CARTOGRAPHY ON THE TEACHING OF GEOGRAPHY IN LATIN AMERICA** (Chile)
5. I. Krauze-Tomczyk, J. Karpinska **“GEOGRAPHICAL ATLAS OF EUROPE” FOR THE BLIND AND VISUALLY IMPAIRED** (Poland)

August 7th, 15:00 – 16:30 (Room: Galaxy 5)

Oral session 2: New ways of accessing spatial information in the absence of vision: multimodal interfaces & virtual mapping

Chairmen: William Cartwright / N. Komedchikov

1. R.D. Jacobson **THE FUTURE OF TACTILE CARTOGRAPHY: FROM STATIC RAISED LINES TO MULTIMODAL DYNAMIC PORTABLE COMPUTER INTERFACES** (Canada)

2. J. R. Marston, J. M. Loomis, R. G. Golledge, R. L. Klatzky **USING VIRTUAL SPATIALIZED OUTPUT TO AUGMENT AND IMPROVE THE USER INTERFACE OF GPS NAVIGATION SYSTEMS FOR PEOPLE WHO ARE BLIND** (USA)
3. S.G.J. Jansson **THE READING OF VIRTUAL MAPS WITHOUT VISION** (Sweden)
4. M. Simonnet, R.D. Jacobson, J. Rowell **TOUCH, HEAR AND SEA: A SIMULATOR FOR THE BLIND SAILOR'S GEOGRAPHICAL REPRESENTATION** (France, Canada, United Kingdom)

August 7th, 15:00 – 16:30 (Room: Galaxy 5)

Poster session:

Chairmen: William Cartwright / N. Komedchikov

1. J.R. Marston, R.G. Golledge **UNDERSTANDING PROBLEMS AND BARRIERS TO TRANSIT USE BY PERSONS WHO ARE BLIND OR VISUALLY IMPAIRED** (USA)

August 7th, 17:00 – 18:30 (Room: Galaxy 5)

Oral session 3: Tactile mapping: further technological developments

Chairmen: R.D. Jacobson / E. Cherepanova

1. J.R. Marston, J. Miele **LARGE PRINT MAP AUTOMATED PRODUCTION** (USA)
2. J.A. Miele **AUTOMATED CREATION AND DETAILED ANNOTATION OF AUDIO/TACTILE MAPS USING SCALABLE VECTOR GRAPHICS (SVG)** (USA)
3. S. Landau **DEVELOPMENT OF A UNIVERSAL INTERACTIVE DISPLAY FOR THREE-DIMENSIONAL CARTOGRAPHIC INFORMATION: THE SMITHSONIAN INSTITUTION'S TALKING TOUCH MODEL OF THE WASHINGTON, D.C. NATIONAL MALL AND ENVIRONS** (USA)
4. W. Zhang, Q. Du, H. Zhao **RESEARCH ON DESIGNATION OF THE BLIND SOUND MAP INFORMATION SYSTEM** (China)
5. J. Rowell **THE END OF TACTILE MAPPING OR A NEW BEGINNING: LBS FOR VISUALLY IMPAIRED PEOPLE** (United Kingdom)

24. PLANETARY CRTOGRAPHY

Chair: Kira B. Shingareva

Vice-chair: James Zimbelman

August 7th, 10:30 - 12:00 (Room: Evening Space 1)

COMMISSION MEETING

August 5th, 15:00 – 16:30 (Room: Venus)

Oral session 1: Historical analysis and perspectives

Chairmen: R. McMaster / J. Zimbelman

1. K.B. Shingareva, E.V. Cherepanova, I.P. Karachevtseva **EXTRATERRESTRIAL MAPPING. ANALYSES AND PERSPECTIVES** (Russia)
2. R.L. Kirk, B.A. Archinal, L.R. Gaddis, M.R. Rosiek **CARTOGRAPHY FOR LUNAR EXPLORATION: CURRENT STATUS AND PLANNED MISSIONS** (USA)
3. T.C. Duxbury **GLOBAL MAPPING OF MARS: A HISTORICAL PERSPECTIVE** (USA)

4. S. Pugacheva **CARTOGRAPHIC METHOD OF THE RESEARCH AND SPACE IMAGE INTERPRETATION OF THE TERRESTRIAL PLANETS** (Russia)

August 6th, 10:30 – 12:00 (Room: Venus)

Oral session 2: Current Mars mapping

Chairmen: R. Kirk / E. Cherepanova

1. J. Albertz, S. Gehrke, H. Lehmann, M. Waehlich, G. Neukum **THREE YEARS OF MARS CARTOGRAPHY USING HRSC DATA** (Germany)
2. J.R. Zimbelman **CARTOGRAPHIC APPLICATIONS DERIVED FROM THE ANALYSIS OF SPACECRAFT DATA FROM MARS** (USA)
3. S. Gehrke, R. Koehring, N.G. Barlow **PIMAP AS A TOOL FOR CARTOGRAPHIC REPRESENTATION OF THE "CATALOG OF LARGE MARTIAN IMPACT CRATERS"** (Germany, USA)
4. P. Saiger, M. Tiede, F. Preusker, M. Waehlich, H. Asche, J. Oberst, R. Jaumann **ANALYSIS OF MARS DATA USING ARCOBJECTS AND MODELBUILDER** (Germany)
5. R.L. Kirk, E. Howington-Kraus, M.R. Rosiek, D. Cook, J. Anderson, K. Becker, B.A. Archinal, L. Keszthelyi, R. King, A.S. McEwen **ULTRAHIGH RESOLUTION TOPOGRAPHIC MAPPING OF MARS WITH HIRISE STEREO IMAGES: METHODS AND FIRST RESULTS** (USA)

August 6th, 12:30 – 14:00 (Room: Venus)

Oral session 3: Current giant planets moons and small bodies mapping

Chairmen: J. Albertz / K. Shingareva

1. R.L. Kirk, E. Howington-Kraus, K.L. Mitchell, S. Hensley, B.W. Stiles **FIRST STEREOSCOPIC RADAR IMAGES OF TITAN** (USA)
2. T. Roatsch, M. Waehlich, B. Giese, A. Hoffmeister, K.-D. Matz, F. Scholten, R. Wagner, A. Kuhn, G. Neukum, G. Helfenstein, C. Porco **A HIGH-RESOLUTION ATLAS OF THE SATURNIAN MOON ENCELADUS DERIVED FROM CASSINI IMAGES** (Germany)
3. K. Willner, J. Oberst, M. Waehlich, K.-D. Matz, T. Roatsch, J. Bendig **VALIDATION OF THE PHOBOS ORBIT AND CONTROL POINT NETWORK WITH HRSC AND SRC ON MARS EXPRESS** (Germany)
4. M.E. Fleis, M.M. Borisov, M.V. Alexandrovich, P. Stooke, K.B. Shingareva **CARTOGRAPHIC PROJECTIONS FOR SMALL BODIES OF THE SOLAR SYSTEM** (Russia, Canada)

August 6th, 15:00 – 16:30 (Room: Venus)

Oral session 4: Current mapping of the Moon

Chairmen: T. Duxbury / S. Pugacheva

1. E. Cherepanova, K. Shingareva, I. Karachevtseva, S. Leonenko, E. Lazarev **EXTRATERRESTRIAL GIS DEVELOPMENT ON SOLAR SYSTEM BODIES: THE EARTH'S MOON GEODATABASE** (Russia)
2. M.I. Shpekin **PROBLEMS OF A UNIFORM SELENODETIC COORDINATE SYSTEM CONSTRUCTION FOR GLOBAL MAPPING OF THE MOON** (Russia)
3. E.N. Lazarev, Zh.F. Rodionova **THE LUNAR SUBPOLAR RELIEF MAP: THE WAYS AND TECHNIQUES OF COMPILING AND USING** (Russia)
4. A.V. Kurpichev **USING REPROCESSED DATA OF SOVIET LUNAR PROGRAMS FOR THE FUTURE EXPEDITION PLANNING** (Russia)

August 6th, 17:00 – 18:30 (Room: Venus)

Oral session 5: Current and new projects

Chairmen: R. Peres / I.P. Karachevtseva

1. J.R. Zimbelman, K. Shingareva, B.V. Krasnopevtseva, R. Pérez Gómez, A. Vázquez Hoehne, M. Buchroithner, E. Dorrer **A NEW VERSION OF THE MULTILINGUAL PLANETARY CARTOGRAPHY GLOSSARY** (Russia, Germany, Spain, USA)
2. M.F. Buchroithner, B.V. Krasnopevtseva, K.B. Shingareva, S.M. Leonenko, M.E. Fleis, P. Stooke **THE PROJECT OF MULTILINGUAL MAPS SERIES ON CELESTIAL BODIES: CURRENT STATE AND THE NEAR FUTURE** (Russia, Germany, Canada)
3. I.P. Karachevtseva, K.B. Shingareva, E.V. Cherepanova **GEOSTATISTICAL ANALYSIS OF THE PLANETARY NOMENCLATURE DATABASE AS A METHOD OF EXTRATERRESTRIAL TERRITORY MENTAL EXPLORATION** (Russia)
4. H.I. Hargitai, Sz. Berczi, B. Kereszturi, E. Illes **LOCALIZING THE GAZETTEER OF PLANETARY NOMENCLATURE** (Hungary)
5. S.M. Leonenko, S.S. Dubov, I.Y. Rozhnev **BILINGUAL MULTIMEDIA ELECTRONIC VERSION OF "ATLAS OF TERRESTRIAL PLANETS AND THEIR MOONS"** (Russia)

25. RESEARCH AND DEVELOPMENT, NEW PRODUCTS AND CARTOGRAPHIC SYSTEMS

Chair: Irina Karachevtseva

August 8th, 10:30 – 12:00 (Room: Venus)

Oral session 1-1: New projects

Chairmen: P. Vivas / T.V. Verestchaka

1. V.A. Krivolapov **THE PROJECT OF THE SPECIALIZED TOPOGRAPHIC MAP FOR HYDROECOLOGIC PURPOSES** (Russia)
2. A.F. Wyttenbach, M. Alvarez, B. Bernabe, J. Borbinha **DIGITAL MAP LIBRARIES SERVICES IN THE SPATIAL DATA INFRASTRUCTURE (SDI) FRAMEWORK: THE DIGMAP PROJECT CASE** (Spain, Portugal)
3. F. A. del Río, P. Vivas **THE "PRINTER MAP KIOSK" OF THE SPANISH CNIG PROJECT: CARTOEXPEND** (Spain)
4. F. A. del Río, P. Vivas **THE SPANISH CARTOGRAPHY ON MOBILE HAND-PLATFORM: THE MOVILMAP PROJECT** (Spain)
5. R. Barriga **QUALITY MANAGEMENT SYSTEM OF THE CARTOGRAPHIC PROCESS AT THE MILITARY GEOGRAPHIC INSTITUTE OF CHILE** (Chile)
6. B.G. Petrov, G.S. Mavlyautdinova, U.A. Shakirova, A.T. Gorshkova **METHODICAL APPROACHES TO CREATION OF THE ATLAS «MUNICIPAL FORMATIONS OF REPUBLIC OF TATARSTAN »** (Russia)

August 8th, 12:30 – 14:00 (Room: Venus)

Oral session 1-2: New projects

Chairmen: F. del Río / T.V. Verestchaka

1. T.V. Verestchaka, I.I. Lonskiy, A.S. Vakhtanov **GRAPHIC BASE OF CARTOGRAPHIC DATA** (Russia)
2. S. Spahlinger **THE U.S. CENSUS BUREAU'S CARTOGRAPHIC SYSTEM FOR SUPPORTING THE 2010 DECENNIAL CENSUS** (USA)
3. A. Mkrtchian **INTEGRATION OF SEMANTIC INFORMATION IN MAP LAYERS AND UNCERTAINTY MANAGEMENT** (Ukraine)

4. J. Koch **PINK FORESTS AND GREY WATER** (Denmark)
5. M.L. Advis, C. Andrade **CARTOGRAPHY OF THE SOUTHERN ZONE OF CHILE USING RSTM** (Chile)

August 8th, 15:00 – 16:30 (Room: The main hall)

Poster session:

Chairmen: K. Engsager / T.V. Verestchaka

1. E. Coll, J.C. Martinez **DEVELOPMENT OF TOPOLOGIC TOOLS AND SPATIAL ANALYSIS TOOLS TO DESIGN A GIS IN THE LOCAL ADMINISTRATION USING OPEN SOURCE SOFTWARE** (Spain)
2. Ye. Stakhov **THE EXPERIENCE OF THE MICROSTATION SOFTWARE USING FOR CARTOGRAPHIC PRODUCTS** (Ukraine)
3. A. Moscicka, M. Brzezinska, A. Wrochna **METHODOLOGY OF CREATING DATABASE ABOUT GEOGRAPHICAL OBJECTS AND THEIR NAMES OCCURRING IN THE BIBLE** (Poland)
4. E.S. Utrobina **«BUKLET ATLAS» AS A NEW SORT OF CARTOGRAPHIC PRODUCTS FOR A WIDE RANGE OF CONSUMERS** (Russia)
5. O.G. Grachov **THE METHOD OF GLOBES PRODUCTION AND THE DEVICE FOR ITS REALIZATION** (Ukraine)
6. K. Engsager **TRANSFORMATION OF MAP INFORMATION FROM ONE DATUM TO ANOTHER** (Denmark)
7. H. Zhao, Z. He, W. Zhang, M. Bian **RESEARCH ON ADAPTABILITY OF MAP ADVERTISEMENT INFORMATION AND MAP INFORMATION** (China)

August 9th, 10:30 – 12:00 (Room: Venus)

Oral session 2: New development

Chairmen: V. Walter / I.P.Karachevtseva

1. V. Walter, S. Volz **AUTOMATIC URBANITY CLUSTER DETECTION IN STREET VECTOR DATABASES WITH RASTER-BASED ALGORITHMS** (Germany)
2. S. Fickas, X. Yao, A.K. Lobben **APPLYING SPATIAL ABILITY ASSESSMENTS TO A PERSONALIZED NAVIGATION ASSISTANT** (USA)
3. A.B. Alekseev, I.P. Karachevtseva, S.K. Korobtsov, A.I. Martynenko **TECHNOLOGY DEVELOPMENT OF THE ELECTRONIC SYNTHESIZED GEOIMAGES CREATION AND APPLICATION** (Russia)
4. A.G. Ivanov, S.A. Krylov **DEVELOPMENT AND REALIZATION OF GEOINFORMATIONAL SMALL SCALE MAPPING** (Russia)
5. S.K. Beskov, S.A. Korobtsov, T.P. Nyrtsova **SCIENTIFIC AND METHODOLOGICAL APPROACHES AND PRACTICE OF USING DIVERSE SPATIAL DATA IN MAKING CARTOGRAPHIC PRODUCTS** (Russia)

August 9th, 12:30 – 14:00 (Room: Venus)

Oral session 3: New products

Chairmen: C.L. Eicher / O.V. Artemyeva

1. A.R. Buckley, C. Frye **LESSONS LEARNED IN CARTOGRAPHIC DATA MODELING IN SUPPORT OF GIS-BASED MAP PRODUCTION** (USA)
2. C.L. Eicher, D. Neuffer, B. Schneider, M. Bedel **HOW TO NOT CUT YOURSELF ON THE BLEEDING EDGE: EXPERIENCES FROM IMPLEMENTING A CARTOGRAPHIC PRODUCTION SYSTEM BASED ON COMMERCIAL GIS SOFTWARE** (Switzerland, Germany)
3. A. Braun, X. Halbecq, F. Lecordix, J.-M. Le Gallinc, F. Prigen **A NEW FLOWLINE FOR THE FRENCH TOPOGRAPHIC MAPS IN I.G.N.** (France)

4. O.V. Artemyeva **OFFICE MAPS AS A NEW SORT OF CARTOGRAPHIC PRODUCTS. THE THEORY AND PRACTICE** (Russia)
5. J.C. Martinez, E. Coll **POSTGIS ANALYSIS TOOL (PGAT). AN OPEN SOURCE PROJECT** (Spain)

26. OTHER THEMES (CADASTRAL MAPS, HEALTH AND MAPPING, SOCIAL MAPS, CULTURE AND MAPS)

Chair: Eva Krzywicka-Blum

August 6th, 15:00 – 16:30 (Room: Neptune)

Oral session 1: Cadastral maps

Chairmen: E. Swensson / I. Abdullaev

1. E. Swensson **QUALITY IMPROVEMENTS OF THE CADASTRAL INFORMATION IN SWEDEN** (Sweden)
2. G.A. Lukashevich **PROBLEMS OF CARTOGRAPHIC REPRESENTATION AND INTERPRETATION OF CADASTRE DATA** (Russia)
3. J.A. Maantay, A.R. Maroko **PERFECTING THE DENOMINATOR: DEVELOPING A CADASTRAL-BASED EXPERT DASYMETRIC SYSTEM (CEDS) IN NEW YORK CITY** (USA)
4. I.U. Abdullaev **APPLICATION OF LAND-CADASTRAL MAPS** (Uzbekistan)

August 6th, 17:00 – 18:30 (Room: Neptune)

Oral session 2: Health and mapping

Chairmen: R.M. Baber / S.V. Serebryakov

1. A.O. Dogru, N.N. Ulugtekin, S. Alkoy **GIS APPLICATIONS ON EPIDEMIOLOGY WITH CARTOGRAPHIC PERSPECTIVE IN TURKEY** (Turkey)
2. R.M. Baber, A.S. Willis **CARTOGRAPHIC ANALYSIS OF HEALTH BEHAVIORS: MAPPING THE SPATIAL DIMENSIONS OF RELIGION'S INFLUENCE ON TOBACCO AND ALCOHOL USE IN METROPOLITAN BIRMINGHAM, ALABAMA USA** (USA)
3. S.V. Serebryakov, A.A. Alyabev, V.B. Gurvich, O.L. Malykh **APPLICATION OF GEOINFORMATION TECHNOLOGIES IN MONITORING OF SVERDLOVSK AREA** (Russia)
4. D. Nikolaenko, V. Triukhan, V. Nikitina, M. Romanchouk **GROWTH-QUANTITY EQUALIZATION AS A METHOD OF HIV/AIDS DYNAMICS CARTOGRAPHIC DESCRIPTION** (Ukraine)
5. D. Nikolaenko, V. Triukhan, V. Nikitina, M. Romanchouk **GIS EXPLANATION OF HIV/AIDS EPIDEMIC IN UKRAINE** (Ukraine)

August 7th, 10:30 – 12:00 (Room: Neptune)

Oral session 3: Social maps

Chairmen: D.K. Kresnawati / T.V. Verestchaka

1. M. Leitner, T. Pal **ASSESSMENT, EVALUATION AND MAPPING OF INDIVIDUALLY CALIBRATED JOURNEY-TO-CRIME CRIMINAL GEOGRAPHIC PROFILING MODELS** (USA)
2. A.L. Griffin, R.M. Beaty **GENERATING DASYMETRIC POPULATION MAPS USING SATELLITE IMAGERY-DERIVED LAND-COVER DATA: AN EMPIRICAL COMPARISON OF DATA CHARACTERISTICS AND ANALYTICAL METHODS** (Australia)

3. M. Leitner, J. Kent, J. Austin **THE IMPACTS OF HURRICANES KATRINA AND RITA ON PUBLIC SAFETY IN LOUISIANA – A SPATIO-TEMPORAL ANALYSIS AND MAPPING OF REPORTED CRIMES** (USA)
4. F.J. Escobar, D. Sarazoglu, B. Sanchez **AUTOMATING VISUALIZATION AND ANALYSIS OF LIFELINES IN A GIS ENVIRONMENT** (Spain)
5. D.K. Kresnawati, S.L. Munajati, R. Windiastuti **MAPS SOCIALIZATION IN INDONESIA** (Indonesia)
6. M.D. Abad **THE WOMAN AND THE OFFICIAL CARTOGRAPHY IN THE SPAIN OF 20TH CENTURY** (Spain)

August 7th, 12:30 – 14:00 (Room: Neptune)

Oral session 4: Culture and maps

Chairmen: E. Krzywicka-Blum / S.V. Serebryakov

1. E. Krzywicka-Blum, H. Klimczak, J. Bac-Bronowicz **GENDER DIFFERENTIATION OF PRIMACY EDUCATION – CARTOGRAPHICAL PICTURE REPRESENTATION IN THE INITIATIVE SYSTEM OF POPULATION MAPS** (Poland)
2. B. Jiang **RANKING SPACES FOR PREDICTING HUMAN MOVEMENT IN AN URBAN ENVIRONMENT** (Hong Kong)
3. T. Neutens, N. Van de Weghe, P. Bogaert, Ph. De Maeyer **ANALYSING AND VISUALISING HUMAN ACTIVITIES FROM A TIME-GEOGRAPHIC PERSPECTIVE** (Belgium)

August 7th, 15:00 – 16:30 (Room: The main hall)

Poster session:

Chairmen: P. Collier / I. Abdullaev

1. P. Collier, A.W. Pearson **THE ROLE OF THE INTERNATIONAL GEOGRAPHICAL UNION IN THE PROMOTION OF THE MAPPING OF AFRICA** (United Kingdom)
2. I. Drecki **CELEBRATING 30 YEARS OF NEW ZEALAND'S INVOLVEMENT IN THE INTERNATIONAL CARTOGRAPHIC ASSOCIATION** (New Zealand)
3. L. Xia, P. Hu **THE SOLUTION ON EUCLIDEAN SPACE SHORTEST PATH AND MINIMUM SPANNING TREE WITH OBSTACLES** (China)
4. A.P. Micou **FEASIBILITY OF INSTALLING SUSTAINABLE URBAN DRAINAGE SYSTEMS IN ALREADY URBANIZED AREAS OF THE CALDERDALE DISTRICT, WEST YORKSHIRE. ENGLAND** (Argentine)