

# **ADBIS 2007**

## **Conference Programme**

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## Saturday, 29.09.2007

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13:00 – 19:00 *Registration - Hall 0*

19:00 – 21:00 *Welcome drink in the Koral Hotel*

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## Sunday, 30.09.2007

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09:00 **Opening Ceremony** Hall 1 Chair: Boris Rachev

09:30 **Invited Talk 1**

Conference **Hall 1**

Chair: Yannis Ioannidis

**ETL Workflows: From Formal Specification to Optimization** 1

*Timos K. Sellis, Alkis Simitsis*

**Abstract**

In this paper, we present our work on a framework towards the modeling and optimization of Extraction-Transformation-Loading (ETL) workflows.

The goal of this research was to facilitate, manage, and optimize the design and implementation of the ETL workflows both during the initial design and deployment stage, as well as, during the continuous evolution of a data warehouse. In particular, we present our results which include: (a) the provision of a novel conceptual model for the tracing of inter-attribute relationships and the respective ETL transformations in the early stages of a data warehouse project, along with an attempt to use ontology-based mechanisms to semi-automatically capture the semantics and the relationships among the various sources; (b) the provision of a novel logical model for the representation of ETL workflows with two main characteristics: genericity and customization; (c) the semi-automatic transition from the conceptual to the logical model for ETL workflows; and (d) the tuning of an ETL workflow for the optimization of the execution order of its operations.

Finally, we discuss some issues on future work in the area that we consider important and a step towards the incorporation of the above research results to other areas as well.

>>>>>>>>>>>>>>> **11:00 - Coffee Break**

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**11:30 Session 1: Activity Modeling**

Conference **Hall 4**

Session Chair: Yannis Manolopoulos

**1. A Protocol Ontology for Inter-Organizational Workflow Coordination**

*Eric Andonoff, Wassim Bouaziz, Chihab Hanachi*

**2. Preventing Orphan Requests by Integrating Replication and Transactions**

*Heine Kolltveit, Svein-Olaf Hvasshovd*

**3. Discretization Numbers for Multiple-Instances Problem in Relational Database**

*Rayner Alfred, Dimitar Kazakov*

>>>>>>>>>>> **13:00** – *Lunch Break*

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**14:30 Session 2A: Classification**

Conference **Hall 4**

Session Chair: Tadeusz Morzy

**1. Adaptive k-NN Classification Based on a Dynamic Number of Nearest Neighbors**

*Stefanos Ougiaroglou, Alexandros Nanopoulos, Apostolos N. Papadopoulos, Yannis Manolopoulos, Tatjana Welzer-Druzovec*

**2. Database Implementation of a Model-Free Classifier**

*Konstantinos Morfonios*

**14:30 Session 2B: Design**

Conference **Hall 5**

Session Chair: Jaroslav Pokorny

**1. Update Support for Database Views via Cooperation**

*Stephen J Hegner, Peggy Schmidt*

**2. An Agile Process for the Creation of Conceptual Models from Content Descriptions**

*Sebastian Bossung, Hans-Werner Sehring, Henner Carl, Joachim W. Schmidt*

**3. CUDL Language Semantics, Liven up the FDB Data Model**

*Nikitas Karanikolas, Maria Nitsiou, Emmanuel Yannakoudakis, Christos Skourlas*

>>>>>>>>>>> **16:00** - *Coffee Break*

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**16:30 Session 3A: Object-Oriented Systems**

Conference **Hall 4**

Session Chair: Leonid Kalinichenko

**1. ODR: A Next Generation Object-Oriented Environment for Rapid Database Application Development**

*Michal Lentner, Kazimierz Subieta*

**2. An Object-Oriented Based Algebra for Ontologies and their Instances**

*Stéphane Jean, Yamine Ait-Ameur, Guy Pierra*

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**3. Indexing Mobile Objects on the Plane Revisited**

*S. Sioutas, K. Tsakalidis, K. Tsihlias, C. Makris, Y. Manolopoulos*

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**11:30 Session 4B: Clustering and OLAP**

**Conference Hall 5**

Session Chair: Tadeusz Morzy

**1. A Clustering Framework for Unbalanced Partitioning and Outlier Filtering on High Dimensional Datasets**

*Turgay Tugay Bilgin, Ali Yilmaz Camurcu*

**2. Clustering Approach to Generalized Pattern Identification Based on Multi-instanced Objects with DARA**

*Rayner Alfred, Dimitar Kazakov*

**3. Imprecise Data and Knowledge Based OLAP**

*Ermir Rogova, Panagiotis Chountas, Krassimir Atanasov*

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>>>>>>>>>>> **13:00** – Lunch Break

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**14:30 – 18:00 Excursion**

*The Excursion starts from F.J.Curie.*

*Our tour shows the Black Sea coast from St.St. Constantine&Helena Resort to Cape Kaliakra.*

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**Tuesday, 2.10.2007**

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**09:30 Invited Talk 3**

**Conference Hall 1**

Chair: Leonid Kalinichenko

**Schema and data translation: A personal perspective**

*Paolo Atzeni*

**Abstract**

The problem of translating schemas and data from a model to another has been under the attention of database researchers for decades, but definitive solutions have not been reached.

Motivation for the problem comes from the variety of sources available in modern systems, which often use different approaches (and data models) for the organization of information.

The topic is discussed here by first setting the context with reference to the recent proposal for model management system, which considers an even wider set of requirements. Then, definitions are given for the problem of schema and data translation and for the related one concerning data exchange. Some side technical issues are then discussed: how schemas, models and mappings are described, and what is the relationship between source and target schemas in terms of information capacity. Finally, a specific proposal for data translation is discussed in some detail.

>>>>>>>>>>> **11:00** - Coffee Break

**11:30 Session 5: Moving Objects**

Conference Hall 4

Session Chair: Albertas Caplinskas

1. **On the Effect of Trajectory Compression in Spatiotemporal Querying**  
*Elias Frentzos, Yannis Theodoridis*
2. **Prediction of Bus Motion and Continuous Query Processing for Traveler Information Services**  
*Bratislav Predic, Dragan Stojanovic, Slobodanka Djordjevic-Kajan, Aleksandar Milosavljevic, Dejan Rancic*
3. **Optimal Query Mapping in Mobile OLAP**  
*Ilias Michalarias, Hans-J. Lenz*

>>>>>>>>>> 13:00 – Lunch Break

**14:30 Session 6A: Query Processing**

Conference Hall 4

Session Chair: Jaroslav Pokorny

1. **A Statistics Propagation Approach to Enable Cost-Based Optimization of Statement Sequences**  
*Tobias Kraft, Holger Schwarz, Bernhard Mitschang*
2. **A Fixpoint Approach to State Generation for Stratifiable Disjunctive Deductive Databases**  
*Andreas Behrend*
3. **Querying Multidimensional Databases**  
*Franck Ravat, Olivier Teste, Ronan Tournier, Gilles Zurfluh*

**14:30 Session 6B: DB Architectures and Streams**

Conference Hall 5

Session Chair: Rainer Manthey

1. **Incremental Validation of String-based XML Data in Databases, File Systems, and Streams**  
*Beda Christoph Hammerschmidt, Christian Werner, Ylva Brand, Volker Linnemann, Sven Groppe and Stefan Fischer*
2. **Fast and efficient log file compression**  
*Przemyslaw Skibinski, Jakub Swacha*
3. **Efficient Processing Regular Queries In Shared-Nothing Parallel Database Systems Using Tree- And Structural Indexes**  
*Vu Le Anh, Attila Kiss*

>>>>>>>>>> 16:00 - Coffee break

**16:30 Session 7: XML and Databases**

Conference **Hall 4**

Session Chair: Boris Rachev

1. **Combining efficient XML compression with query processing**  
*Przemyslaw Skibinski, Jakub Swacha*
  2. **Approximate functional dependencies for XML data**  
*Fabio Fassetti, Bettina Fazzinga*
  3. **Tailor-Made Native XML Storage Structures**  
*Karsten Schmidt, Theo Härder*
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**20:00 Dinner in the "Poda" Restaurant near Varna (The transportation will be by bus from the F.J.Curie at 19:00)**

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**Wednesday, 03.10.2008**

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**09:30 Session 8: Adaptive systems**

Conference **Hall 4**

Session Chair: Andras Benczur

1. **A method for comparing self-organizing maps: case studies of banking and linguistic data**  
*Toomas Kirt, Ene Vainik, Leo Võhandu*
  2. **Towards Self-Optimization of Message Transformation Processes**  
*Matthias Boehm, Dirk Habich, Uwe Wloka, Jurgen Bittner, and Wolfgang Lehner*
  3. **Applying User Profile Ontology for Mining Web Site Adaptation Recommendations**  
*Tarmo Robal, Ahto Kalja*
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>>>>>>>>>> **11:00 - Coffee Break**

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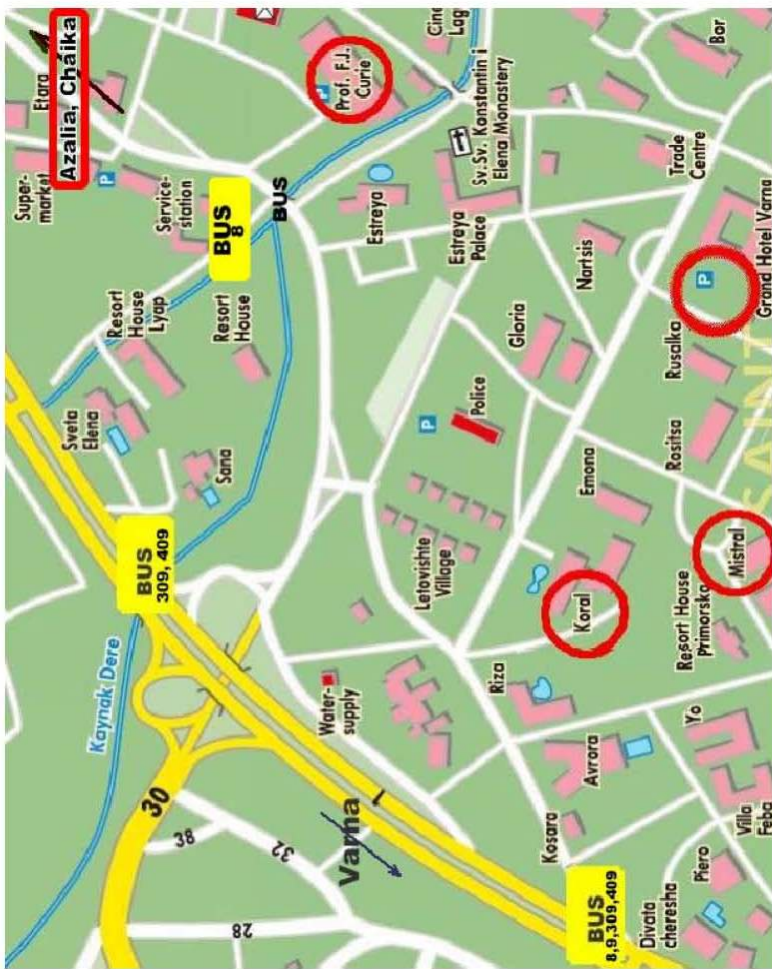
**11:30 Session 9: Distributed Systems**

Conference **Hall 4**

Session Chair: Karel Richta

1. **Fast User Notification in Large-Scale Digital Libraries: Experiments and Results**  
*H. Belhaj Frej, P. Rigaux, and N. Spyratos*
  2. **Quete: Ontology-Based Query System for Distributed Sources**  
*Haridimos Kondylakis, Anastasia Analyti, Dimitris Plexousakis*
  3. **Aggregating Multiple Instances in Relational Database Using Semi-Supervised Genetic Algorithm-based Clustering Technique**  
*Rayner Alfred, Dimitar Kazakov*
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**13:00 Closing Ceremony Hall 5** Chair: Boris Rachev



St.St. Constantine and Helena Resort

