

Call for Papers

STDM'07

International Workshop on *Spatio-Temporal Data Mining*

April 20, Istanbul, Turkey

in conjunction with IEEE 23rd International Conference on Data Engineering (ICDE 2007)

Workshop organizers:

Bart Kuijpers
Theoretical Computer Science Group
Hasselt University, Belgium
bart.kuijpers@uhasselt.be

Mirco Nanni
KDD Lab
ISTI-CNR Pisa, Italy
mirco.nanni@isti.cnr.it

Program committee:

Luis Otavio Alvares (UFRGS, Brazil)
Gennady Andrienko (Fraunhofer, Germany)
Vania Bogorny (UFRGS, Brazil)
Sanjay Chawla (Sydney, Australia)
Max Egenhofer (Maine, USA)
Vladimir Estivill-Castro (Griffith, Australia)
Floris Geerts (Edinburg, UK)
Dimitrios Gunopulos, (California, USA)
Marios Hadjieleftheriou (AT&T, USA)
Panagiotis Kalnis (Singapore)
Donato Malerba (Bari, Italy)
Nikos Mamoulis (Hong Kong)
Michael May (Fraunhofer, Germany)
Dino Pedreschi (Pisa, Italy)
Christophe Rigotti (INSA-Lyon, France)
John Roddick (Flinders, Australia)
Joerg Sander (Alberta, Canada)
Shashi Shekhar (Minnesota, USA)
Yannis Theodoridis (Piraeus, Greece)
Alejandro Vaisman (Buenos Aires, Argentina)

Invited speaker:

to be announced

Proceedings and publicity:

Bart Moelans (Hasselt University)
bart.moelans@uhasselt.be

Contact:

Web: <http://stdm07.uhasselt.be>
Email: stdm07@uhasselt.be

Important dates:

Abstract submission:	November 15, 2006
Paper submission:	November 22, 2006
Notification to authors:	December 26, 2006
Final version:	January 10, 2007
Workshop:	April 20, 2007

Scope: In application areas such as GIS, robotics, computer vision, computational biology, mobile computing and traffic analysis huge amounts of data are generated and stored in databases, explicitly or implicitly containing spatial or spatio-temporal information. For instance, the proliferation of location-aware devices (such as GPS, GSM, UMTS) gives rise to vast amounts of frequently updated telecommunication and traffic data and satellites generate terabytes of image data daily.

These huge collections of spatio-temporal data often hide possibly interesting information and valuable knowledge. It is obvious that a manual analysis of these data is impossible and data mining might provide useful tools and technology in this setting. Spatio-temporal data mining is an emerging research area that is dedicated to the development of novel algorithms and computational techniques for the successful analysis of large spatio-temporal databases and the disclosure of interesting knowledge in spatio-temporal data.

After the PKDD-workshop on Mining Spatio-Temporal Data (MSTD) in 2005 and the ICDM-workshop on Spatial and Spatio-temporal Data Mining (SSTD) in 2006, this workshop wants to bring together experts in knowledge discovery, data mining and analysis of spatial, temporal and spatio-temporal data as well as knowledge engineers and domain experts from application areas.

Topics of interest: This workshop will focus on basic research (from theory to tools and algorithms) and applicative scenarios for knowledge discovery from datasets containing temporal, spatial or spatio-temporal information. The goal of the workshop is to promote and publish research in the area, including the following topics:

- theoretical aspects of spatio-temporal data mining, interesting patterns of spatio-temporal knowledge and new mining tasks;
- algorithmic frameworks for spatio-temporal data mining;
- data mining for trajectory data produced by moving objects;
- the role of spatio-temporal semantics in data mining, the role of spatial and temporal relations as information sources;
- the role of spatio-temporal reasoning and ontologies in data mining;
- the role of spatial resolution and temporal granularity in spatio-temporal data mining (mining at different levels of resolution and abstraction);
- the role of uncertainty (coming from diverse sources) in spatio-temporal data mining;
- the role of privacy in spatio-temporal data mining;
- spatio-temporal OLAP and aggregation;
- visual approaches to spatio-temporal data mining and visualization of mining results;
- data structures and efficient indexing methods for spatio-temporal mining algorithms;
- specific techniques and tools for dealing with real-time updated data and streaming data in the spatio-temporal context;
- applications and case studies of spatio-temporal data mining.

Submissions: Authors are invited to submit electronically original full papers in PDF format to stdm07@uhasselt.be. Papers length should not exceed 10 pages and must follow the 2 column standard IEEE format (see <http://www.icde2007.org/>). Acceptance will be based on relevance, technical soundness, originality, and clarity of presentation. Accepted papers will be published by IEEE CS Press in electronic form