

# The Second International Workshop on Peer-to-Peer Knowledge Management

(P2PKM'05)

[www.p2pkm.org](http://www.p2pkm.org)

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co-located with MobiQuitous 2005 ([www.mobiquitous.org](http://www.mobiquitous.org))



## Workshop Chairs

*Ilya Zaihrayeu*

Univ. of Trento, Italy

E-mail: [ilya@dit.unitn.it](mailto:ilya@dit.unitn.it)

*Dave Robertson*

University of Edinburgh, United Kingdom

E-mail: [dr@inf.ed.ac.uk](mailto:dr@inf.ed.ac.uk)

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*Matteo Bonifacio*, ITC-Irst, Italy

*Fausto Giunchiglia*, Univ. of Trento, Italy

*Ilya Zaihrayeu*, Univ. of Trento, Italy

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*Bernard Traversat*, SUN Microsystems, USA

*Eric Tsui*, The Hong Kong Polytechnic  
University, Hong Kong

*Frank van Harmelen*, Vrije Universiteit  
Amsterdam, the Netherlands

*Wamberto Vasconcelos*, Univ. of Aberdeen,  
UK

*Chris Walton*, Univ. of Edinburgh, UK

## Important Dates

*Submission deadline*: May 14<sup>th</sup>, 2005

*Acceptance notification*: May 31<sup>st</sup>, 2005

*Camera ready due*: June 27<sup>th</sup>, 2005

## The Scope

Peer-to-Peer (P2P) architectures are intended to allow autonomous peers to interoperate in a decentralized, distributed manner for fulfilling individual and/or common goals. Peers have equivalent capabilities in providing other peers with data and/or services. Confederations of peers may be forged or broken opportunistically through the choices made by individual peers. The overall performance of a P2P network emerges from local point-to-point interactions of (all) peers on the network.

The P2P paradigm in general offers a prospect of robustness, scalability and availability of large pool of storage and computational resources. The approach has been shown to be effective for basic but essential tasks such as file sharing. P2P, however, offers opportunities not addressed in existing architectures. They include the creation, maintenance, exchange, acquisition, and use of knowledge by peers. Because they are autonomous, peers can represent knowledge in a number of diverse forms, e.g. contexts, knowledge bases, files, databases, etc. In order to facilitate the interoperation, peers may agree on a shared conceptualization of a knowledge domain in the form of, for instance, ontology, and collectively maintain it over time. Apart from this, peers should be able to locate other peers, having required pieces of information and/or providing required services; agree on the meaning of the pieces of information (service delivery protocols) they want to exchange; and interoperate, based on the reached agreement, in a meaningful, purpose-driven way.

The P2PKM workshop is intended to serve as an active forum for researchers and practitioners, where they will have the possibility to exchange and discuss novel ideas, research results and experiences, laying in the intersection of the P2P, Knowledge Management (KM), Semantic Web, databases, pervasive computing, agents, as well as other related fields.

## Topics of Interest

- Methodologies to analyze, design and deploy distributed KM solutions;
- Data models and distributed query languages;
- Meta-data representation and management;
- Semantic Web and P2P KM systems;
- Semantic web services to support P2P KM;
- Semantics-driven peer coordination mechanisms;
- Protocols, algorithms and techniques to support semantic interoperability;
- Role of ontologies in P2P KM systems;
- Distributed knowledge discovery;
- Trust and reputation as means to support knowledge acquisition;
- Agent-mediated KM;
- P2P and databases;
- P2P KM in location- and context-aware environments;
- Mobile and ubiquitous P2P KM;
- P2P to support (virtual) communities of practice and interest networks;
- Organizational impacts of P2P technologies, and social adoption of distributed technologies;
- P2P KM system architectures, infrastructure and middleware;
- Experience with deployed systems, performance evaluation and benchmarking;

## Invited Talks

Bernard Traversat, SUN Microsystems, USA. "*JXTA™: Beyond P2P File Sharing, the Emergence of Knowledge Addressable Networks*"

Matteo Bonifacio, ITC-Irst, Italy. "*Centralized vs. Distributed Knowledge Management: Is it the right question?*"

## Submission

We invite the submission of high quality technical papers. The submitted papers should be formatted as close as possible to the Springer LNCS style and must not exceed 12 pages including figures and references. The authors of the best papers will be invited to submit an extended version of their paper for a special issue of the LNCS Journal of Data Semantics.

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