



SKY Δ 2010 - CFP

Important Dates

April 10, 2010:	Paper Submission – <i>Extended Deadline!</i>
April 20, 2010:	Author Notification
May 01, 2010:	Camera-Ready Copy
June 16, 2010:	Workshop day

Call for papers
SKY Δ 2010 - International Workshop on Software Knowledge
<http://SoftwareKnowledge.org>

Hosted at the IEEE International Conference on Software Science, Technology & Engineering
SWSTE2010 - http://www.iltam.org/infoblank.php?id=sd_swste10_foreword
June 15 - 16, 2010
Herzlia, Israel

SKY Δ = Software Knowledge

SKY – a shorthand of “Software Knowledge” – is the forum to push up Δ the current frontiers of complex software interactions. It aims to trigger a novel domain of expertise related to all bidirectional **Software** $\langle \triangleright \triangleright \rangle$ **Knowledge** aspects. It starts where others ended up, from the assumption that *semantics* is not a nicety, but intrinsic to the nature of software. SKY aims to offer a very high perspective, badly needed to close the semantic gap. It reflects the expectations that when it comes to Software, the sky’s really the limit.

SKY Fields

From **Software** ▷ **Knowledge**

Software is the medium to distil knowledge from raw data. Software is also pure knowledge, in its upper abstraction model levels. Software engineering is, as well, an inspiration for improving knowledge Management

- Knowledge mining and harvesting
- Knowledge representation and modeling
- Knowledge Reuse and metrics
- Software tools for automatic Knowledge engineering and manipulation

From **Knowledge** ▷ **Software**

Knowledge is distilled abstract software. Thinking Software as Knowledge opens the possibility to apply Knowledge processes, models, techniques and tools in the improvement of Software management and development process.

- Ontologies
- Information Retrieval
- Software Management as Knowledge management
- At last MDA

The Nature of **Software** △

Consider Software as “strongly typed” and “highly structured” Knowledge. Software is a runnable expression of meaning, thus dynamic and testable Knowledge.

- Upper Software model levels as world and domain views
- Medium Software model levels: strongly typed and structured
- Runnable and testable knowledge representations
- Software Domain Formal Representations

The Nature of **Knowledge** △

Consider Knowledge as an evolution of Software. The coherence of any software package gradually decays by successive upgrade patches. Similarly Knowledge left alone, without software distillation efforts, inexorably decays by the accumulation of raw information. On the other hand, Knowledge is as traceable as Software, thus amenable to evaluation and selective application.

- What is knowledge?
- Knowledge vs Information vs Data
- Knowledge decay and entropy increase
- Knowledge selectivity and traceability
- Knowledge mining and harvesting

VLSSoft = Very Large Systems' Software ◀▶

The larger the system, the higher the hierarchical abstraction levels, i.e. the Knowledge, needed to concisely describe and maintain the system. The Web is a striking example of a naturally evolving, immense system and substrate available to everyone wishing to explore it. Semantics is essential to bridge the gap between elementary search keywords and complex knowledge. For the same reasons, semantics is indispensable to bridge the gap between fine-grained OOD and very large Software.

- Web dynamics and interestingness
- Specialized Search Engines
- Search based software engineering
- Semantics above and beyond design patterns

SKY Topics

SKY topics include but are not limited to:

Software ▷ Knowledge

- Knowledge Indexing and Repositories Management
- Knowledge Reuse
- Knowledge Development Process
- Agile methodologies for Knowledge development
- Knowledge Metrics
- Knowledge Visualization
- CASE tools for Knowledge Management (CAKE)
- Runnable and testable knowledge representations

Knowledge ▷ Software

- Software Retrieval and Reuse
- Software Extraction and Indexing
- Software Mining and Harvesting
- Software mining strategies based upon Knowledge evolution.
- Semantic Software Representations (SKOS, Ontologies, and more)
- Software Semantic Networks
- MDA, MDE, MDD

Software △

- Software as knowledge: definitions and properties
- Software as runnable and testable semantics
- Software Domain Formal Representations
- Upper Software model levels : New Methods
- Medium Software model levels: New Methods
- Lower Software model levels: (5GL / 6 GL)
- Software Classification

Knowledge △

- What is knowledge?
- Knowledge vs. Information vs. Data
- Knowledge Representation and Modeling
- Knowledge Traceability for Information Retrieval
- Knowledge Selectivity
- Knowledge Classification
- Knowledge Transformation

VLSSoft <|>

- Knowledge and Software in the Web context
- Interestingness for rearranging search results
- Novel Knowledge search techniques
- Software search engines
- Search assisted finding of suitable components/models/code for reuse
- Web Software Retrieval
- Software Sharing: Meta-models, interchange formats, and infrastructure tools

Workshop Organizers

Juan Llorens
Carlos III of Madrid University, Spain
Department of Computer Science
Llorens [at] inf.uc3m.es

Iaakov Exman
Jerusalem College of Engineering, Software Engineering Dept., Israel
iaakov [at] jce.ac.il
and
Bar-Ilan University, School of Engineering, Israel

Anabel Fraga
Carlos III of Madrid University, Spain
Department of Computer Science
afraga [at] inf.uc3m.es

Program Committee

- Hernán Astudillo, Universidad Técnica Federico Santa María, Chile
- Sidney C. Bailin, Knowledge Evolution, Inc., USA.
- Catriel Beeri, Hebrew University of Jerusalem, Israel
- Rachel Ben-Eliyahu-Zohari, JCE & Ben-Gurion University, Israel
- Dragan Djuric, University of Belgrade, Serbia
- Thomas Eiter, Technische Universitaet Wien, Austria
- Iaakov Exman, JCE & Bar-Ilan University, Israel
- Yishai Feldman, IBM Research Laboratory in Haifa, Israel
- Anabel Fraga, Universidad Carlos III de Madrid, Spain
- Bill Frakes, Virginia Tech., USA
- José Miguel Fuentes, The Reuse Company, Spain
- Gonzalo Génova, Universidad Carlos III de Madrid, Spain
- Paulo Gomes, University of Coimbra, Portugal
- Donald Kraft, US Air Force Academy, USA
- Juan Llorens, Universidad Carlos III de Madrid, Spain
- Mei Hong, Peking University, China
- Jorge Morato, Universidad Carlos III de Madrid, Spain
- Jose Antonio Moreiro, Universidad Carlos III de Madrid, Spain
- Fernando Silva Parreiras, University of Koblenz-Landau, Germany
- Rubén Prieto-Diaz, James Madison University, USA
- Gil Regev, Ecole Polytechnique Fédérale de Lausanne, Switzerland
- David C. Rine, George Mason University, USA
- Michal Smialek, Warsaw University of Technology, Poland

Guidelines for Submission

Papers to be published by SKY fall into the following categories:

- Research papers: state of the art in the field (8 pages);
- Position papers: discussion on ongoing problems in the area, solutions and studies on how the problem could be solved (5 pages);
- Industrial papers: industrial experience in the area, case studies, problems and solutions (8 pages);

Papers should be formatted according to the IEEE Guidelines.

Full Papers Submission:

Authors are welcome to send their contributions. Submitted papers must be original, unpublished and must not be under any other evaluation process. Each submitted paper will undergo a blind rigorous review process by two members of the Program Committee.

Please email your papers to (SKY [at] SoftwareKnowledge.org). If you have questions regarding submission do not hesitate to contact us by e-mail (SKY [at] SoftwareKnowledge.org).

Publication:

All papers accepted for presentation at the SKY 2010 Workshop will be published in the Workshop Proceedings (hardcopy and CD) available at the workshop.

Outstanding papers among those presented at the SKY 2010 Workshop will be selected by the program committee to be published in a special journal issue, to appear after the workshop. Authors of outstanding papers will be notified and invited to edit the papers according to reviewers' comments and in a format suitable for journal publication.

Detailed information about the journal issue will be provided during the SKY 2010 Workshop.

Important Dates

April 10, 2010:	Paper Submission – <i>Extended Deadline!</i>
April 20, 2010:	Author Notification
May 01, 2010:	Camera-Ready Copy
June 16, 2010:	Workshop day