



# SKY'2012

## 3<sup>rd</sup> International Workshop on Software Knowledge

### 4 October 2012, Barcelona, Spain

Hosted by IC3K'2012 – The 4<sup>th</sup> International Joint Conference on Knowledge  
Discovery, Knowledge Engineering and Knowledge Management

#### Organizers

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#### Scope

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“*Software Knowledge*” – in short SKY – means that software in its higher abstraction levels is a new kind of *knowledge*, **Runnable knowledge**. Thus, the classes and relationships of a software UML diagram are easily viewed as the classes and relationships of a knowledge ontology.

For further details visit [SoftwareKnowledge.org](http://SoftwareKnowledge.org).

The main theme of the SKY2012 Workshop is *Between Software Models and Ontologies*. We mean rigorous and precise transformations back and forth between Software System Models and their respective Runnable Knowledge given by Ontologies.

The Workshop main objective is to offer rigorous transitions between high-level abstractions found in software models and suitably modified knowledge ontologies. Among its goals we aim at a quantitative and generic measure of meaning, based upon graph models such as ontologies.

## Topics of Interest

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Software-Knowledge is the highest of a software *hierarchy of abstraction levels*. Thinking Software as Knowledge opens the possibility to apply Knowledge processes, models, and tools to improve Software discovery, development, management and deep understanding.

Software Knowledge is a *runnable expression of meaning*. We refer to the observation that running facilitates understanding in a very general sense. A high-brow example is the need to read again and again poetry to understand its meaning. A more down to earth instance is the debugging process, where one runs and breaks at desired points to understand the reason of software failures.

SKY2012 topics of relevance include but are not limited to:

### Software-Knowledge Hierarchy and Operations

- Software-Knowledge selectivity and traceability
- Software-Knowledge Sharing: Meta-models, interchange formats, and tools
- Knowledge Driven Architecture and Engineering

### Software-Knowledge Runnability and Meaning

- Software-Knowledge representation and modeling
- Semantic Software Representations (SKOS, Ontologies, and more)
- Semantics above and beyond design patterns
- Runnable and testable knowledge representations
- Web dynamics and interestingness
- Ontologies in complex systems

## Expected Outcomes

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Expected outcomes of the SKY2012 Workshop are:

- A continuing effort to standardize a Software-Knowledge representation consisting of software modeling language encompassing semantics as first class objects.
- Proposals for quantitative expressions of meaning based upon graph models.

## Important Dates

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**July 04, 2012:** Full & Position Papers Submission (EXTENDED)

**July 16, 2012:** Author Notification (EXTENDED)

**July 24, 2012:** Final Paper Submission and Registration

**October 4, 2012:** Full day Workshop

## Program Committee

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- Hernán Astudillo, Universidad Técnica Federico Santa María, Chile
- Sidney C. Bailin, Knowledge Evolution, Inc., USA
- Rachel Ben-Eliyahu-Zohari, Jerusalem College of Engineering, Israel
- Shlomi Dolev, Ben-Gurion University, Israel
- Dragan Djuric, University of Belgrade, Serbia
- Shlomi Dolev, Ben-Gurion University of the Negev, Israel
- Iakov Exman, Jerusalem College of Engineering, Israel
- Yishai Feldman, IBM Research Laboratory in Haifa, Israel
- Michael Fink, Technische Universitaet Wien, Austria
- 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, Cisuc, University of Coimbra, Portugal
- Donald Kraft, Colorado Technical University, USA
- Juan Llorens, Universidad Carlos III de Madrid, Spain
- Jorge Morato, Universidad Carlos III de Madrid, Spain
- Jose Antonio Moreiro Gonzalez, Universidad Carlos III de Madrid, Spain
- Rubén Prieto-Diaz, James Madison University, USA

- Gil Regev, Ecole Polytechnique Fédérale de Lausanne, Switzerland
- David C. Rine, George Mason University, USA
- Fernando Silva Parreiras, FUMEC University, Brazil
- Michal Smialek, Warsaw University of Technology, Poland
- Daniel Speicher, University of Bonn, Germany
- Reuven Yagel, Jerusalem College of Engineering, Israel

## Invited Speakers

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Following the tradition established in previous years, SKY'2012 invites recognized researchers to deliver invited talks in the workshop:

Dr. Hugo Zaragoza – founding CEO of Websays – Talk title to be announced.

## Paper Submission

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Prospective authors are invited to submit papers in any of the topics listed above. Instructions for preparing the manuscript (in Word and Latex formats) are available at: [Paper Templates](#). Please also check the [Submission Guidelines](#).

Papers should be submitted electronically via the web-based submission system at: <http://www.insticc.org/Primoris>

## Publications

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All accepted papers, including position papers, will be published in the workshop proceedings book and on CD-ROM support, under an ISBN reference.

All papers presented at the conference venue will be available at the SciTePress Digital Library (<http://www.scitepress.org/DigitalLibrary/>). SciTePress is member of CrossRef (<http://www.crossref.org/>).

## Registration Information

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At least one author of an accepted paper must register for the workshop, and the registration fees received by **July 24, 2012**, in order to have the paper published in the workshop proceedings book.

## Previous Editions

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For information on SKY'2010 and SKY'2011 please visit the [SoftwareKnowledge.org](http://SoftwareKnowledge.org) web site.

## Secretariat Contacts

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IC3K Workshops – SKY 2012

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