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CONTACT 2014

**First International Workshop on
Computer vision +
ONTology Applied Cross-disciplinary Technologies**

<http://profs.ci.univr.it/~cristanm/contact2014/>



September 7, 2014, Zurich, Switzerland
in association with ECCV 2014

---BEST PAPER AWARD (500 euros) offered by IOS Press---

---BEST STUDENT PAPER AWARD (300 euros) offered by IAOA---

>> PAPER submission: June 20, 2014<<

CALL FOR PAPERS

Image and video understanding is the process of converting elementary visual entities (pixels, voxels) to symbolic forms of knowledge (textual tags, predicates), by means of various kinds of models (statistical classifiers, neural networks, expert systems, etc.). It represents the highest processing level in a computer vision system, operating usually on top of a basic processing layer, which extracts intermediate image representations (patches, volumes). Due to the unconstrained nature of photographic images and videos, and the lack of fully reliable low-level features, the process of image understanding may be helped grounding it with a prior semantic model describing any domain knowledge, which may operate during both learning and inference. This semantic layer is usually represented by means of an ontology, intended as a set of primitive concepts and relations expressed by axioms providing an interpretation to the vocabulary chosen for the visual description of a domain.

After the early steps in the eighties, the research domain that cross-pollinates computer vision and formal ontology stagnated, limited probably by the lack of available domain ontologies. However, more recently, with the creation of shared resources as ImageNet, TinyImage, Labelme, on the computer vision side, and Wordnet on the formal ontology side, the area exploded, leading to an exponential growth in the scientific community.

The aim of **CONTACT 2014** is to bring together a wide range of researchers in computer vision and machine learning on one side, and formal ontology on the other, to share innovative ideas and solutions for exploiting the potential synergies emerging from the integration of the two domains, for object and event recognition, scene, image and video understanding, with the long term goals of promoting the development of a proper visual ontology and a better understanding of how such a visual ontology could be used for visual inference.

CONTACT 2014 will be the first of a series of events which will have an interesting yet unique characteristic: in order to gradually connect the communities of computer vision and formal ontologies in a tight relationship, the **CONTACT 2014** workshop will be hosted iteratively in a major computer vision conference (as ECCV is) and in a major ontology conference (as FOIS - Formal Ontologies for Information

Systems): this way, the cross-fertilization will take place by involving the best of the two communities, with alternative emphasis on one facet or the other.

BEST PAPER AWARD

A "Best Paper Award" of 500€ granted by IOS press (<http://www.iospress.nl/>) will be conferred to the author(s) of a full paper presented at the workshop, selected by the Organizing Committee based on the best combined marks of paper reviewing, assessed by the Program Committee, and paper presentation quality, assessed by Organizing Committee at the conference venue. **BEST STUDENT PAPER AWARD**

BEST STUDENT PAPER AWARD

A "Best Student Paper Award" of 300 euros granted by IAOA (International Association for Ontology and its Applications) will be conferred to a PhD student who is among the authors of a full paper presented at the workshop, selected by the Organizing Committee based on the best combined marks of paper reviewing, assessed by the Program Committee, and paper presentation quality, assessed by Organizing Committee at the conference venue. Moreover, free membership to the IAOA will be granted to three PhD students who are among the authors of papers selected following the same criteria.

IMPORTANT DATES

- June 20, 2014: paper submission deadline
- July 25, 2014: acceptance notification
- July 27, 2014: *pre-paper* camera ready (firm deadline)
- September 7, 2014: workshop day
- Two weeks after ECCV 2014 (exact date TBD): official camera ready

Pre-papers are temporary copy of your manuscript which will be put on the ECCV USB stick.

SCOPE

The topics of interest for the convention include, but are not limited to, the following areas:

- Semantic image/video understanding
- Ontology-based cognitive vision
- Semantic visual features
- Visual concept ontology
- Ontological engineering
- Prototype theory
- Ontology and probability theory
- Automatic and semi-automatic ontology learning and inference
- Web-based knowledge acquisition
- Ontology representation for computer vision
- Ontology- and knowledge-based vision systems
- Ontologically driven scene understanding
- Semantically-aided object identification
- Semantically-aided action recognition
- Expert systems for image and video processing
- Video surveillance

- Social signal processing
- Various applications: medical imaging, remote sensing, etc.

INVITED SPEAKERS

- * [Fei-Fei Li](#), Stanford University, USA
- * [Werner Ceusters](#), New York State Center of Excellence in Bioinformatics & Life Sciences, USA

ORGANIZATION

--Workshop Organizers--

- * [Marco Cristani](#), Università degli Studi di Verona
- * [Roberta Ferrario](#), Italian National Research Council
- * [Jason J. Corso](#), SUNY Buffalo

--Publicity and Web Chair--

- * [Francesco Setti](#), Italian National Research Council

PROGRAM COMMITTEE

(More focused on the Computer Vision side)

- Francois Bremond, INRIA Sophia Antipolis, FR
- Rita Cucchiara, Università degli Studi di Modena, IT
- Trevor Darrell, University of California, Berkeley, USA
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- Andrea Vedaldi, University of Oxford, UK
- Alessandro Vinciarelli, University of Glasgow and Idiap Research Institute, UK
- Song-Chun Zhu, University of California, Los Angeles, USA

(More focused on the Ontology side)

- Mehul Bhatt, University of Bremen, DE
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- Konstantin Todorov, University Montpellier 2, FR
- Shiqi Zhang, Texas Tech University, USA

SUBMISSION INSTRUCTIONS

Authors are invited to check the **CONTACT 2014** website link

<http://profs.sci.univr.it/~cristanm/contact2014/>

for details regarding the submission instructions. A CMT server is available for submission at:

<https://cmt.research.microsoft.com/CONTACT2014/>

PROCEEDINGS

The workshop proceedings will be published together with the proceedings of the main conference.

RESOURCES

* **CONTACT 2014** homepage:

<http://profs.sci.univr.it/~cristanm/contact2014/>

* Twitter:

<https://twitter.com/contactws>