Informatica

CALL FOR PAPERS - Computer Vision and Image Analysis of Art II

24 maggio 2010

Computer Vision and Image Analysis of Art II - Conference EI108

Deadlines:
- Abstract (500 words) and Summary (200 words): 28 June 2010
- Manuscript for Post-Meeting Proceedings: 13 December 2010

This third conference will present leading research in the application of computer vision, image analysis, pattern recognition and computer graphics to problems of interest to art historians, curators and conservators.

The conference chairs and program committee invite high-quality submissions of papers discussing new results in the following and closely related topics: image analysis of perspective, brush strokes, form, color and multi-spectral images for attribution and dating; color modeling and manipulation for predicting the effects of conservation treatments; image de-warping to reveal undistorted images from anamorphic art or depictions of reflections in curved mirrors. This symposium will strongly favor work on computer analysis, rather than on image acquisition, database creation, archiving, image search, human perception of art, or the creation of digital art. That is, the conference will focus on problems where the computer makes some "decision."

A goal is to foster dialog and collaboration between image scientists and humanists; as such, interdisciplinary teams of image scientists and art scholars are encouraged to submit.

Recent questions have highlighted the value of rigorous image analysis in the service of studies of art, for example: fractal image analysis for the authentication of drip paintings by Jackson Pollock; sophisticated perspective, shading and form analysis to address claims

that early Renaissance and Baroque masters traced optically projected images; automatic multi-scale analysis of brushstrokes for the attribution of portraits within a painting; and multi-spectral, x-ray and infra-red scanning and image analysis to reveal Leonardo's techniques; correlation tests for artists' use of counterproofing, analysis of marks to infer artists' tools or to date printed works. Such work strongly suggests that computer methods will play an increasing role in scholarship of art.

Papers will be judged on the quality of the research methodology, the rigor of the analysis of the algorithms, the novelty and usefulness of the approaches, the clarity of the scholarly presentation, and most importantly the relevance of the work to our understanding of visual artifacts such as prints, paintings and sculpture in both realist and abstract vernaculars.

Computer methods
- perspective analysis
- style, brushstroke or tooling analysis
- shape from shading
- three-dimensional reconstruction of spaces
- wavelet and multiscale analysis
- fractal analysis
- pattern classification
- inferring illumination within depicted scenes
- inferring artist ("camera") models
- shape analysis
- digital correlation analysis
- and more…

Art historical questions
- authentication and detection of forgeries
- digital connoisseurship
- dating of artwork, including intaglio and woodblock prints
- "reverse aging" of faded artworks such as tapestries to recover original colors
- predicting color changes due to conservation treatment
- reconstructing artists' studios from artworks
- separation and enhancement of overlaid images as in palimpsests and paintings with underdrawings
- infering artists' techniques, aids, and praxis based on images
- dewarping anamorphic, distorted or panoramic artwork
- dewarping of distorted passages depicted within artwork
- geometrical transformations for re-presenting curved art
- completing missing or damaged passages in paintings
- image understanding in realist paintings
- metrology in artistic imagery
- quantifying trends (color, brush stroke, …) in artistic images throughout an artist's career
- testing for artists' use of tools
- determining the studio illumination from a realist painting
- and more…

The 2011 Keynote presentation will be given by Prof. Ron Spronk, Queen's College (Canada).

Conference Chairs
David G. Stork, Ricoh Innovations, Inc.; Jim Coddington, Museum of Modern Art; Anna Bentkowska-Kafel, King's College London (United Kingdom)

Program Committee
Ingrid Daubechies, Princeton Univ.; Charles R. Dyer, Univ. of Wisconsin-Madison; Roger L.

Easton, Jr., Rochester Institute of Technology; Daniel J. Graham, Dartmouth College; Ella Hendriks, ; Shannon M. Hughes,
Univ. of Colorado at Boulder; Mohammad Tanvir Irfan, Stony Brook Univ.; Siwei Lyu, New York Univ. at Albany; Kirk Martinez, Univ. of Southampton (United Kingdom); Eric O. Postma, Univ. van Tilburg (Netherlands); Daniel N. Rockmore, Dartmouth College; Robert Sablatnig, Technische Univ. Wien (Austria); Ron Spronk, Queen's Univ. (Canada); Filippo D. Stanco, Univ. degli Studi di Catania (Italy); David M. Stone, Univ. of Delaware; Song-Chun