

Conference 7869

Tuesday-Wednesday 25-26 January 2011 • Proceedings of SPIE Vol. 7869

Computer Vision and Image Analysis of Art II

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**, Van Gogh Museum (Netherlands); **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 Zhu**, Univ. of California, Los Angeles

Tuesday 25 January

Grand Peninsula Ballroom E Tues. 5:30 to 8:00 pm

Interactive Paper and Symposium Demonstration Session

Demonstrations 5:30 to 8:00 pm

A symposium-wide demonstration session will be open to attendees 5:30 to 8:00 pm Tuesday evening. Demonstrators will provide interactive, hands-on demonstrations of a wide-range of products related to Electronic Imaging.

Posters 5:30 to 7:00 pm

Interactive papers will be placed on display after 9:00 am on Monday. An interactive paper session, with authors present at their papers, will be held Tuesday evening, 5:30 to 7:00 pm.

Time and order estimation of paintings based on expert priors: applications in art history and curatorial treatment, Ricardo S. Cabral, João P. Costeira, Univ. Técnica de Lisboa (Portugal); Fernando de La Torre, Carnegie Mellon Univ. (United States); Alexandre Bernardino, Gustavo Carneiro, Univ. Técnica de Lisboa (Portugal) [7869-15]

Machine learning of multi-feature visual texture classifiers for the authentication of Jackson Pollock's drip paintings, Mahmoud Al-Ayyoub, Stony Brook Univ. (United States); David G. Stork, Ricoh Innovations, Inc. (United States); Mohammad Tanvir Irfan, Stony Brook Univ. (United States) [7869-17]

Improved curvature-based inpainting applied to fine art: recovering van Gogh's partially hidden brush strokes, David G. Stork, Ricoh Innovations, Inc. (United States); Yubin Kuang, Fredrik Kahl, Lund Univ. (Sweden) [7869-18]

Did Caravaggio employ optical projections? An image analysis of the parity in the artist's paintings, David G. Stork, Ricoh Innovations, Inc. (United States) [7869-19]

A computer graphics reconstruction and optical analysis of scale anomalies in Caravaggio's "Supper at Emmaus", David G. Stork, Ricoh Innovations, Inc. (United States); Yasuo Furuichi, Consultant (Japan) [7869-20]

Image analysis of the underdrawings in Lorenzo Lotto's "Husband and wife", David G. Stork, Ricoh Innovations, Inc. (United States); Alexander J. Kossolapov, State Hermitage Museum (Russian Federation) [7869-21]

Automated classification of quilt photographs into crazy and non-crazy, Alhaad Gokhale, Indian Institute Of Technology, Kharagpur (India); Peter Bajcsy, Univ. of Illinois at Urbana-Champaign (United States) [7869-22]

Polarized light scanning for cultural heritage investigation, Jay Arre O. Toque, Yusuke Murayama, Ari Ide-Ekessabi, Kyoto Univ. (Japan) [7869-23]

After digital cleaning: visualization of dirt layer, Maricor N. Soriano, Cherry May Palomero, Univ. of the Philippines (Philippines) [7869-24]

Wednesday 26 January

Grand Peninsula Ballroom A. Wed. 8:20 to 9:20 am

Plenary Session and Conference Award Presentations

8:25 am: **Problems in Biological Imaging: Opportunities for Signal Processing**, Jelena Kovacevic, Carnegie Mellon Univ. (United States) [E111SE-102]

SESSION 1

Bayside Room A. Wed. 9:30 to 10:30 am

Looking Inside the Painting

Session Chair: David G. Stork, Ricoh Innovations, Inc.

9:30 am: **Documenting Van Eycks' Ghent Altarpiece: field work experiences from the crypt**, Ron Spronk, Queen's Univ. (Canada) and Radboud Univ. Nijmegen (Netherlands) [7869-01]

10:10 am: **Computer analysis of lighting style in fine art: an inter-artist study**, David G. Stork, Ricoh Innovations, Inc. (United States) . . [7869-02]

Coffee Break 10:30 to 11:10 am

SESSION 2

Bayside Room A. Wed. 11:10 am to 12:30 pm

Semantic Classifications, Iconography, and CBIR

Session Chair: Anna Bentkowska-Kafel, King's College London (United Kingdom)

11:10 am: **The automatic annotation and retrieval of digital images of prints and tile panels using network link analysis algorithms**, Gustavo Carneiro, João P. Costeira, Univ. Técnica de Lisboa (Portugal) . . [7869-03]

11:30 am: **Explaining scene composition using kinematic chains of humans: application to Portuguese tiles history**, Nuno P. da Silva, Manuel Marques, Gustavo Carneiro, João P. Costeira, Univ. Técnica de Lisboa (Portugal) [7869-04]

11:50 am: **Top-down analysis of low-level object relatedness leading to semantic understanding of medieval image collections**, Pradeep Yarlagadda, Juan Antonio Monroy, Bernd Carque, Bjoern Ommer, UniversitätsKlinikum Heidelberg (Germany) [7869-05]

12:10 pm: **A framework for analysis of large database of old art paintings**, Jérôme Da Rugna, Gaël Chareyron, Pôle Univ. Léonard de Vinci (France) [7869-06]

Lunch Break 12:30 to 2:00 pm