PRELIMINARY PROGRAM

CGIV 2012

6th European Conference on Colour in Graphics, Imaging, and Vision

University of Amsterdam
Amsterdam, the Netherlands
May 6-9, 2012

CGIV 2012 Cooperating Societies

The Colour Group (Great Britain)

Comité Español del Color

Deutsche Gesellschaft für
Angewandte Optik, DGaO

Flemish Innovation Centre for
Graphic Communications VIGC

The French Color Imaging Group

German Society for Color Science
and Application (DfwG)

GI Fachbereich Graphische
Datenverarbeitung

Gruppo del Colore
(Italian Color Group)

Inter-Society Color Council

The Royal Photographic Society
of Great Britain/Imaging Science
Group

Swedish Colour Centre Foundation

www.imaging.org/ist/conferences/cgiv/

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in cooperation with the Universiteit van Amsterdam

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Special Note
You may find locating a hotel room a challenge in May. There is a large meeting in Amsterdam at the same time as CGIV and it is prime time for viewing tulips. We suggest you book your hotel as soon as possible.

Conference Highlights

We invite you to CGIV 2012, which is hosted this year by the University of Amsterdam.

Amsterdam, the capital of the Netherlands, is one of the most charming and delightful towns of Europe. Amsterdam possesses the largest historical inner city of Europe, with beautiful monumental buildings and an extensive web of canals.

CGIV 2012 will start with a high-quality workshop and two short courses. Both will be given at the Science Park location of the University of Amsterdam. The technical sessions will be held in the Auditorium, University of Amsterdam, a beautiful 17th-century church (Oude Lutherse Kerk), located in the center of Amsterdam. Besides functioning as a church, this historical building is the place where PhD ceremonies are held during the academic year.

We've planned a social program that allows for networking in culturally interesting venues, including a special canal boat tour. Highlights of this year's program include:

- A welcome reception Sunday evening in the beautiful garden of the Krasnapolsky Hotel.
- Three days of technical papers, including three keynotes and two Interactive Paper Sessions.
- A canal boat trip on Monday evening.
- A banquet on Tuesday at the Royal Tropical Institute.

We look forward to seeing you in Amsterdam!

—Theo Gevers, General Chair, and
David Foster and Alessandro Rizzi, Programme Chairs

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Special Note on IS&T Bookstore at CGIV

Because of the conference's location within a church, IS&T will not be able to sell books this year during CGIV. To accommodate those wishing to purchase books at our special reduced rates, we are offering attendees the opportunity to order them prior to the conference and not incur the cost of shipping. To take advantage of this, place your order by April 6 with Donna Smith (dsmith@imaging.org).

We will have a copy of our most popular titles available for viewing during the conference, but you will not be able to purchase them onsite. We apologize for this inconvenience.

Venues and Transportation

About Amsterdam

Amsterdam, the capital of the Netherlands, is one of the most charming and delightful cities of Europe. It is Europe's largest historical inner city, with beautiful architecture and an extensive web of 17th century canals. A boat trip along the canals is a special experience, and part of CGIV's social program.

Amsterdam is easily explored on foot, and the conference venue's "heart of the city" location provides easy access to museums, monuments, and the many open-air markets. Cultural attractions include the Rijksmuseum, Van Gogh Museum, Hermitage Amsterdam, Anne Frank House, Diamantslijperijen (diamond cutting district), and Rembrandt House. For more information go to www.iamsterdam.com.

Flower lovers take note of Floriade 2012, the Netherland's World Horticultural Expo that takes place once every 10 years in the city of Venlo. You may also want to visit the annual Keukenhof springtime tulip festival. For more information visit www. floriade.com/ and www.keukenhof.nl/.

Getting to/from Amsterdam

Schiphol International Airport (AMS), located ~15 kilometers and 20 minutes by train from downtown, has direct flights to most cities worldwide. Schiphol Railway Station is located below the airport. Exit the baggage claim area and follow signs for the train. You can purchase tickets at a kiosk or from the ticket counter. Trains depart approximately every 15 minutes throughout the day to Amsterdam's Centraal Station. From the station you can take a taxi or tram to your hotel or the conference venue. Car travel is not encouraged as parking is difficult. For more information go to www.schiphol.com/.

Plan your travel using www.9292.nl/en

Conference Event Venues

(see map at right; headings color-coded to match map)

Technical Sessions: Auditorium

All technical sessions will be held in the University of Amesterdam Auditorium (Oude Lutherse Kerk), located at Singel 411, a 35 minute walk or 10 minute tram ride from Amsterdam Centraal. Take Trams #1, 2, or 5 in the direction of Osdorp de Aker for three stops and get off at Spui, a 2-minute walk to the Auditorium.

Short Courses: Science Park

Short courses will take place in Building 904, area D, 2nd floor of the University of Amsterdam's Science Park. Take the Sprinter Train from Amsterdam Centraal Station toward Almere for two stops to the Science Park station. Building 904 is a 10 minute walk; see also www.scienceparkamsterdam.nl.

Sunday Welcome Reception

The famous Krasnapolsky Hotel, located on the edge of Dam Square, is the site of our Welcome Reception. We expect the weather to be mild and lovely in early May so that you can stroll through the lovely garden, while enjoying drinks and snacks and catching up with old friends. The reception is included in the conference registration fee.

Monday Canal Boat Trip

On Monday evening we will enjoy a guided boat trip along the historic and tranquil Amsterdam canals. Drinks and light snacks will be served on board. You may join colleagues later that evening for dinner. The boat trip is included in the registration fee.

Tuesday Conference Banquet

The Conference Banquet takes place at the beautiful Royal Tropical Institute, where a splendid dinner will be served in the stunning Marble Hall. The banquet is included in the conference registration fee.

Location of Events
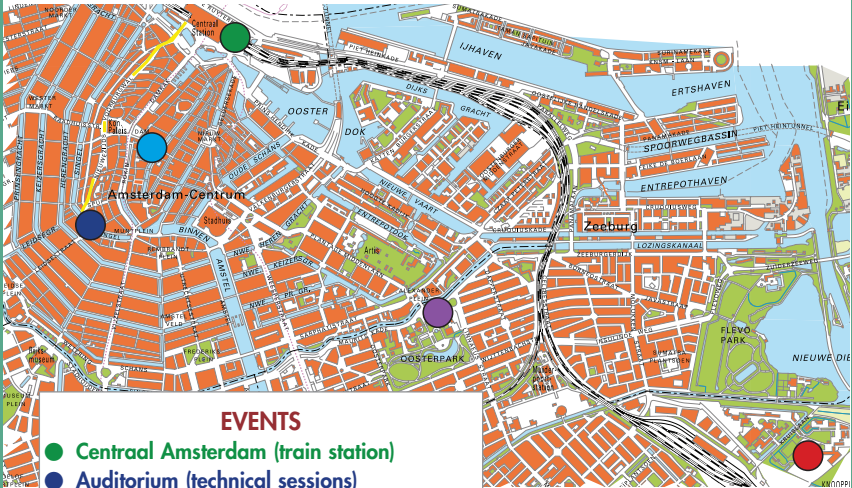
EVENTS
- 🟢 **Centraal Amsterdam (train station)**
- 🔵 **Auditorium (technical sessions)**
- 🔴 **Science Park (short courses)**
- 🔵 **Krasnapolsky Hotel (welcome reception)**
- 🟣 **Tropical Institute (conf. banquet)**
- ▬▬ **route to walk or take Tram #1, 2, or 5**

Photo: Suzanne Grinnan.

Centraal Amsterdam is the main hub for trains, trams, and buses, not to mention a place to embark on a boat tour. The conference venue is a 35-minute walk from the station.

CGIV2012 Lunch Option

This year's conference fee does NOT include lunch, however if you'd prefer not to have to find a place to eat each day, you may pre-order lunch when you register. The cost is €12/day or €33 if you order for all three days. Lunch includes two sandwiches, fresh fruit juice, fruit, and a candy bar.

Accommodations

There is no headquarter hotel for this meeting. We suggest exploring various booking sites like hotels.com to locate accommodations and the best rates.

The following is a list of hotels located on Nieuwezijds Voorburgwal, the street that connects the conference venue to Centraal Station. It is a ~25-30 minute walk from Centraal to the conference venue. Trams #1, 2, and 5 also run down this street. Rate information was obtained 15/02/12 from hotel websites. Hotels closer to the conference venue are further from Centraal.

~10-minute walk to/from conference venue

Corner House Hotel (2 ½ stars), basic hotel with café, bar, 24-hour front desk, and bicycle rental.
www.hotelcornerhouse.nl/hotel.htm
- info@hotelcornerhouse.nl
- + (31) (0) 20 624 1326
- **Rates (includes wifi and tax):** €60 to €110

Hotel Meviana (3 stars), variety of room configurations with restaurant, bar, 24-hour front desk.
www.mevlanahotel.com/
- hotelmevlana@hotmail.com
- + (31) (0) 20 330 6641
- **Rates (including wifi access):** range from €9 (dorm rooms) to €45 for (private twin)

~15-minute walk to/from conference venue

Hotel Convent (4 stars), features coffee/tea making facilities, minibar, wifi, spa, and fitness center.
www.mgallery.com/gb/hotel-1159-the-convent-hotel-amsterdam-mgallery-collection/index.shtml
- + (31) (0) 20 654 5730
- **Rates:** €180 to €270

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and take advantage of member registration rates

Hotel Citadel (3 stars), non-smoking property with a bar, 24-hour front desk, safe, airport shuttle, and wifi.
www.hotelcitadel.nl/
- hotel.citadel.ams@wxs.nl
- +31 (0) 20 627 38 82
- **Rates:** €115 to €180

Bob's Youth Hostel (2 ½ stars), dormitory-only property (4 to 16 beds/room); minimum age limit 18/maximum 30.
www.bobsyouthhostel.nl/
- +31 (0) 20 623 0063
- **Rates (includes breakfast and tax):** €18 (weekdays) to €25/30 (Fri./Sat.)

~20-minute walk to/from conference venue

Inntel Hotels (4 stars), non-smoking property with restaurant, bar, room service, 24-hour front desk, safe, bike rental, and airport shuttle.
www.inntelhotelsamsterdamcentre.nl
- infoamsterdam@inntelhotels.nl
- +31 (0) 20 422 1919
- **Rates (includes wifi):** €190 to €250

Avenue Hotel (3 stars)
www.avenue-hotel.nl/
- reservations@avenue-hotel.nl
- +31 (0) 20 530 9570
- **Rates (includes wifi and breakfast):** €95 to €190

Crowne Plaza (4 stars), featuring a sauna and fitness facilities.
www.crowneplaza.com/hotels/us/en/amsterdam/amsnl/hoteldetail
- 1 877 270 1393
- **Rates:** €215 to €300

St. Nicholas Hotel (3 stars)
www.hotelnicolaas.nl/en/
- info@hotelnicolaas.nl
- +31 (0) 20 626 1384
- **Rates (includes wifi and breakfast):** ~€165 to €190

Conference At-a-Glance

Short Course Registration: *Sunday 12.00 -15.30.*
at University of Amsterdam Science Park (Science Park 904, section D, 2nd floor)

Conference Registration: *lobby, Univ. of Amsterdam Auditorium (Oude Lutherse Kerk)*
Monday May 7: 7.00 – 17.00   Tuesday May 8: 7.00 – 16.20
Wednesday May 9: 7.30 – 12.00

Sunday, May 6
- Short Courses, see p. 6
  - Display Technologies
  - Understanding and Handling the Quality of Experience (QoE) for Multimedia Applications
- Half Day Workshop, see p. 7
  - General-purpose Gamut Mapping
- Welcome Reception at the famous Krasnapolsky Hotel

Monday, May 7
- Keynote Speaker: Erik Reinhard, University of Bristol, see p. 8
- Technical Sessions
  - Colour Capture/Reproduction A
  - Image Quality
  - Colour Science/Appearance
  - Interactive Paper Session 1
- Canal Boat Tour

Tuesday, May 8
- Keynote Speaker: Jan Koenderink, Delft University of Technology, see p. 10
- Technical Sessions
  - Colour Capture/Reproduction B
  - Colour Image/Video Processing
  - Interactive Paper Session 2
- Conference Banquet in the "Marble Hall" at the Royal Tropical Institute

Wednesday, May 9
- Keynote Speaker: Geoff Woolfe, Canon Information Systems Research Australia Pty. Ltd, see p. 12
- Technical Sessions
  - Colour Vision/Cognition
  - Spectral Colour Science

Photo: Suzanne Grinnan.

The square just outside the Oude Lutherse Kerk is a pleasant place to enjoy your bag lunch (see p. 3).

GET MORE FOR YOUR $$$!

€675 = **CGIV Non-member Registration**

OR

€595   **CGIV Member Registration**
+€80[*] **Membership**

€675 = **Conference Registration**
IS&T Membership
Access to 16,000+ papers
Access to member database
JIST or JEI online subscription
Reduced Course/Reg Fees
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Become a member when you register and use the member rate to calculate fees!

[*]Non-US address membership; based on Feb. 2012 exchange rate. Membership charged in US dollars at $105/overseas address; $95/US address; $25/students.

CGIV Short Course Program: Sunday May 6

SC1: Display Technologies
13.00 – 15.00 (2 hours)
Instructor: Erno Langendijk,
Philips CL – BG TV Innovation Site Eindhoven

During the last decade, a revolution has taken place in the display industry. After more than 50 years of CRT domination, PDP and LCD have taken over as the main display technologies in consumer applications. Additionally, a number of other promising display technologies have seen the light and are ready to enter the consumer market. This short course explains the principles of various new display technologies and elaborates on some more advanced display system solutions that improve performance. It also compares technologies with each other on a number of aspects, such as front-of-screen performance and power consumption.

Benefits: Attendees will be able to:
• Explain the principles of a number of new display technologies (LCD, PDP, OLED, Electro-Phoretic, Electro Wetting, DLP).
• List the pros and cons of each technology.
• Describe a number of advanced display system solutions (local dimming and boosting, multi-primary, color sequential, etc.) and understand how to apply them to the various new display technologies.

Intended Audience: scientists, engineers, managers, and others involved in the design, engineering, manufacturing, marketing, or evaluation of displays. Knowledge of color perception and reproduction fundamentals is assumed.

Erno Langendijk is program manager of the Display Research Program and head of the department of the Display Partnerships & Research Group in the Philips CL - BG TV Innovation Site Eindhoven. He joined Philips in 2000, first as senior scientist on visual perception, and later as a project leader and principal scientist on architectures of display systems. He holds more than 40

display-related patents. Langendijk received his MS in physics from Nijmegen University and his PhD in physics from Delft University. He was General Co-chair of CIC18 and he teaches a display course at Delft University.

SC2: Understanding and Handling the Quality of Experience (QoE) for Multimedia Applications
15.15 – 17.15 (2 hours)
Instructor: Mohamed-Chaker Larabi, Univ. of Poitiers

Quality assessment is a very important issue in the framework of image and video processing. First because of the large availability of multimedia applications and contents, and second because many scientists and engineers need to select the right algorithms and tools for evaluation. For several decades, systems were characterized in terms of quality of service (QoS). The latter is measured using metrics that are specific to targeted applications from a systems point of view. However, QoS does not reveal anything related to the system end-user. To address this problem, QoE (Quality of Experience) metrics have been used in the last years because they focus on the end-user/customer experience.

This course is designed to cover several aspects of the field of quality assessment and more specifically QoE. After a brief introduction about the needs of quality assessment for multimedia applications, the most used metrics and subjective paradigms and their limitation are reviewed. The focus of this course is on how to answer these questions: What is QoE for a multimedia application and how to measure it? Which quality procedure for which application and which content? How do you guarantee the quality of a system from the end-user point of view? Several practical examples of how to best handle quality assessment are given.

Benefits: Attendees will be able to:
• Understand issues related to quality assessment for image and video.
• Differentiate between QoS and QoE.

- Learn how to integrate QoE in multimedia applications.
- Define a quality assessment procedure based on the targeted application for QoE modeling.
- Study the performance of a multimedia system.

Intended Audience: This course assumes no prior experience with quality assessment (subjective or objective). It is recommended for anyone (scientific, engineering, and marketing personnel) looking for a concentrated and precise knowledge on how to assess the quality of a material, algorithm, or application. Students will benefit from the many examples used to illustrate the different topics of this course.

Mohamed-Chaker Larabi received his PhD from the University of Poitiers (2000). He is an associate professor, in charge of the perception, color, and quality activity at Poitiers. He is also president of the French National Color Imaging Group founded in 2002. His interests deal with image and video coding and optimization, specifically 2D and 3D image and video quality assessment. He works on human visual system modeling (spatial, temporal and spatio-temporal) for the enhancement of several tools such as compression, and digital cinema. He has been a member of the French National Body for the ISO JPEG committee since 2000 and is chair of the Advanced Image Coding group. He serves as a member of CIE divisions 1 and 8, is a member of IS&T, and a senior member of IEEE.

SC3: General-purpose Gamut Mapping Workshop
13.15 – 17.15 (4 hours)
Instructors: Roger D. Hersch and Romain Rossier, Ecole Polytechnique Fédérale de Lausanne (EPFL)

When developing a new display or printing device, input image colours need to be reproduced onto the new device. This can be done by mapping the colour gamut of input images to the colour gamut of the newly developed output device.

EPFL's gamut mapping software maps the sRGB input or any other display gamut into a user created output gamut. Input gamuts can be both reduced and expanded. A print image simulator shows on a sRGB display the emulation of a printed colour image obtained by gamut mapping of an input image onto a selected printer device gamut.

The short presentations and the hands-on exercises in Matlab aim to make the following topics understandable:
- the shape of a display gamut (sRGB),
- the shape of a classic cmyk print gamut,
- the shape of a daylight fluorescent print gamut, and
- options in mapping a display gamut into a print gamut.

The course will take place in a computer lab to allow for hands-on work.

Benefits: Attendees will be able to:
- Generate the colours of an input gamut.
- Generate the colours of an output gamut by running a previously calibrated printer colour prediction model.
- Perform gamut mapping between the colours of the input and output gamuts according to several possible options (linear or non-linear lightness mapping, constant lightness or multiple focal chroma mapping, parametrisable chroma reduction and expansion, etc.).

Intended Audience: scientists, engineers, and managers involved in the research and design of inks, printers, printing presses, imaging products, or systems.

Romain Rossier is a PhD candidate at the Peripheral Systems Laboratory at EPFL in Lausanne, Switzerland. His research includes colour prediction, mathematical modeling of printing processes, colour printing with ink jet, and optical document security. He received the 2011 MERL Best Student Paper Award at the IS&T/ SID 19th Color and Imaging Conference (CIC19).

Professor R.D. Hersch heads the Peripheral Systems Lab at EPFL. He develops new approaches for colour reproduction and document protection. He is a fellow of IS&T.

Technical Program[*]

8:15 - 9:00
KEYNOTE

Session Chair: Marcel Lucassen,
University of Amsterdam (the Netherlands)

Example-based image manipulation,
Erik Reinhard, University of Bristol (UK)

9:10 - 10:10
COLOUR CAPTURE/
REPRODUCTION A

Session Chair: Peter Zolliker, Empa (Switzerland)

Natural color profile adjustment for professionals, *Peter Morovic, Ján Morovic, Jordi Vilar, Jordi Arnabat, and Angel Albarran, Hewlett-Packard Company (Spain)*

Color appearance control for color vision deficiency by projector-camera system, *Yoshiki Koshikizawa, Takahiko Horiuchi, and Shoji Tominaga, Chiba University (Japan)*

Accurate appearance-based visualization of car paints, *Ivo van der Lans, Eric Kirchner, and André Half, AkzoNobel Automotive & Aerospace Coatings (the Netherlands)*

10:40 - 12:00
IMAGE QUALITY

Session Chair: Ivar Farup,
Gjøvik University College (Norway)

Learning image similarity measures from choice data, *Matthias Scheller Lichtenauer,[1,3] Peter Zolliker,[1] Ingmar Lissner,[2] Jens Preiss,[2] and Philipp Urban[2]; [1]Empa (Switzerland), [2]Technische Universität Darmstadt (Germany), and [3]Friedrich-Schiller-Universität Jena (Germany)*

Acceptability ratings for simulated image distortions of static images corresponding to different viewing angles for a flat panel display, *Mahalakshmi Ramamurthy,[1] Jeff Hovis,[1] and Vasudevan Lakshminarayanan[1,2]; [1]University of Waterloo (Canada) and [2]University of Michigan (USA)*

A machine learning regression scheme to design a FR-Image quality assessment algorithm, *Christophe Charrier, Olivier Lezoray, and Gilles Lebrun, Université de Caen Basse-Normandie (France)*

The impact of image-difference features on perceived image differences, *Ingmar Lissner,[1] Jens Preiss,[1] Philipp Urban,[1] Matthias Scheller Lichtenauer,[2,3] and Peter Zolliker[2]; [1]Technische Universität Darmstadt (Germany), [2]Empa (Switzerland), and [3]Friedrich-Schiller-Universität Jena (Germany)*

13:30 - 14:30
COLOUR SCIENCE/
APPEARANCE A

Session Chair: Reiner Lenz,
Linköping University (Sweden)

Why we don't know how many colors there are, *Ján Morovic,[1] Vien Cheung,[2] and Peter Morovic[1]; [1]Hewlett-Packard Company (Spain) and [2]University of Leeds (UK)*

Metamer mismatch volumes, *Alexander Logvinenko, Glasgow Caledonian University (UK); Christoph Godau, KU Leuven (Belgium); and Brian Funt, Simon Fraser University (Canada)*

Investigating human color harmony preferences using unsupervised machine learning, *Przemyslaw Skurowski and Michal Kozielski, Silesian University of Technology (Poland)*

14:30 - 16:00
INTERACTIVE PAPER SESSION 1

The realization about drawing and dynamical control of flow diagram based on VML, *Hongsheng Li and Junhua Qu, North China Electric Power University (China)*

A grid approach to optimizing color recipes, *Ivo van der Lans, Eric van Winden, Geert-Jan*

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[*]Note: All papers are 20 minutes unless listed under the Keynote or Interactive Paper heading. Interactive papers are presented in poster format and will be available for preview beginning in the morning of the session.

Make your plans early and save!

Early Conference Registration Deadline: April 9

van den Kieboom, and Eric Kirchner, AkzoNobel Automotive & Aerospace Coatings (the Netherlands)

Predicting reflectances of Neugebauer primaries by relying on separately measured ink transmittances, Razieh Jafari and Roger D. Hersch, École Polytechnique Fédérale de Lausanne (Switzerland)

Color reproduction of digitally printed textiles, Yung-Cheng Hsieh and Yu-Ju Wu, National Taiwan University of Arts (Taiwan)

CIELAB based system for burn depth estimation, Aurora Sáez, Begoña Acha, and Carmen Serrano, University of Seville (Spain)

Correcting for non-uniform illumination when photographing the mural in the royal tomb of Amenophis III (III) correcting mural images, Masao Inui,[1] Masaru Kato,[1] Keitaro Inomata,[1] Machiko Sato,[1] Yoshihiko Azuma,[1] Daisuke Saito,[1,2] Tota Mizuno,[1] Takao Kikuchi,[3,4] and Sakuji Yoshimura[4]; [1]Tokyo Polytechnic University, [2]Shibaura Institute of Technology, [3]Cyber University, and [4]Waseda University (Japan)

Learning print artifact detectors,

Hila Nachlieli, Hadas Kogan, Morad Awad, Doron Shaked, and Smadar Shiffman, Hewlett-Packard Company (Israel)

Computer graphics solutions for dealing with colors in archaeology, Filippo Stanco, Università di Catania; Davide Tanasi, Arcadia Universiy; and Anna M. Gueli, Università di Catania (Italy)

Labial teeth and gingiva color image segmentation for gingival health-state assessment, Timo Eckhard, Eva M. Valero, and Juan L. Nieves, University of Granada (Spain)

Can you see what others see—a defect detection model for patterned backgrounds, Guo-Feng Wei, M. Ronnier Luo, and Peter A. Rhodes, University of Leeds (UK)

Using a spectral source to characterize a digital camera and build an ACES input device transform, Alain Sarlat, Ecole Nationale Supérieure Louis-Lumière (France)

Overlayable and rotation-free transmissive circular color marker for augmented reality, Asahi Suzuki, Yoshitsugu Manabe, and Noriko Yata, Chiba University; and Yuki Uranishi, Nara Institute of Science and Technology (Japan)

Optic disc segmentation based on level-set and colour gradients, Aurora Sáez,[1] Irene Fondón,[1] Begoña Acha,[1] Soledad Jiménez,[2] Pedro Alemany,[2] Qaisar Abbas[1], and Carmen Serrano[1]; [1]University of Sevilla and [2]Hospital Universitario Puerta del Mar (Spain)

The conference technical program will be held at the Auditorium, University of Amsterdam, also called the Oude Lutherse Kerk (Old Lutheran Church).

Photos: Suzanne Grinnan.

Colour appearance modelling between physical samples and their representation on large liquid-crystal display, Chrysiida Kitsara, M. Ronnier Luo, Peter A. Rhodes, and Vien Cheung, University of Leeds (UK)

Computational color constancy using a stereo camera, Raju Shrestha and Jon Yngve Hardeberg, Gjøvik University College (Norway)

Skin chromaticity gamuts for illumination recovery, Stuart O.J. Crichton,[1] Jonas Pichat,[2] Michal Mackiewicz,[3] Anya Hurlbert,[1] and Gui Yun Tian[1]; [1]University of Newcastle (UK), [2]ENSEIRB (France), and [3]University of East Anglia (UK)

16:00 - 17:00
COLOUR SCIENCE/
APPEARANCE B
Session Chair: Maria Vanrell,
Universitat Autònoma de Barcelona (Spain)

Colour laser scanner characterisation by enhanced lookup table, Lindsay MacDonald, University College London (UK)

Colour based image retrieval with embedded chromatic contrast, Xiaohong Gao, Yu Qian, Yuanlei Wang, and Anthony White, Middlesex University (UK)

A new version of CIECAM02 with the HPE primaries, Changjun Li, University of Science and Technology Liaoning (China); M. Ronnier Luo, University of Leeds (UK); and Pei-Li Sun, National Taiwan University of Science and Technology (Taiwan)

Photo: Suzanne Grinnan.

Bicycles are a major mode of transportation in Amsterdam and rain is not uncommon, so be sure to pack an umbrella!

Tuesday May 8, 2012

8:15 - 9:00
KEYNOTE
Session Chair: Theo Gevers,
University of Amsterdam (the Netherlands)

Are a priori metrics in colorimetry meaningful?, Jan Koenderink, Delft University of Technology (the Netherlands)

9:10 - 10:10
COLOUR CAPTURE/
REPRODUCTION B
Session Chair: Carinna E. Parraman,
University of the West of England (UK)

An expanded Neugebauer formula, using varying micro-reflectance of the Neugebauer primaries, Daniel Nyström, Linköping University (Sweden)

Investigating the possibility of using fewer training samples—in the color prediction model based on CIEXYZ using an effective coverage map, Yuanyuan Qu and Sasan Gooran, Linköping University (Sweden)

A gamut boundary metadata format, Jurgen Stauder, Corinne Porée, Patrick Morvan, and Laurent Blondé, Technicolor R&D France (France)

10:40 - 12:00
COLOUR IMAGE/
VIDEO PROCESSING A
Session Chair: Mohamed-Chaker Larabi,
University of Poitiers (France)

Spatio-temporal retinex-like envelope with total variation, Gabriele Simone and Ivar Farup, Gjøvik University College (Norway)

Optimal global approximation to spatially varying tone mapping operators, Jakkarin Singnoo and Graham D. Finlayson, University of East Anglia (UK)

Towards a multivariate probabilistic morphology for colour images, Mihai Ivanovici,[1] Alexandru Caliman,[1] Noel Richard,[2] and Christine Fernandez-Maloigne[2]; [1]Transilvania

University (Romania) and [2]University of Poitiers (France)

Wavelet based denoising for RSR, Massimo Fierro, Tae-Hyoung Lee, and Yeong-Ho Ha, Kyungpook National University (Korea)

13:30 - 14:50
COLOUR IMAGE/
VIDEO PROCESSING B
Session Chair: Sebastiano Battiato,
Università di Catania (Italy)

RGB filter design using the properties of the weibull manifold, Reiner Lenz and Vasileios Zografos, Linköping University (Sweden)

The fractal estimator: a validation criterion for the colour mathematical morphology, Audrey Ledoux, Noël Richard, and Anne-Sophie Capelle-Laizé, University of Poitiers (France)

Toward a natural local color image enhancement, Jean-Michel Morel, CMLA ENS Cachan (France); and Ana B. Petro and Catalina Sbert, Universitat Illes Balears (Spain)

Feature based no-reference continuous video quality prediction model for coded stereo video, Z. M. Parvez Sazzad, Rafik Bensalma, and Mohamed-Chaker Larabi, University of Poitiers (France)

14:50 - 16:20
INTERACTIVE PAPER SESSION 2

Accurate information vs. looks good: scientific vs. preferred rendering, John McCann, McCann Imaging (USA) and Vassilios Vonikakis, Democritus University of Thrace (Greece)

Spectral and colorimetric constancy and accuracy of multispectral stereo systems, Julie Klein and Til Aach, RWTH Aachen University (Germany)

Evaluating the noise variance of an image acquisition system with various reconstruction matrices, Mikiya Hironaga and Noriyuki Shimano, Kinki University; and Takashi Toriu, Osaka City University (Japan)

Blackness: preference and perception (value and chroma), Lan Tao, Stephen Westland, and Vien Cheung, University of Leeds (UK)

Hybrid resolution multispectral imaging based on color filter array, Yuri Murakami, Haruka Yoshikai, Masahiro Yamaguchi, and Nagaaki Ohyama, Tokyo Institute of Technology (Japan)

Enhancement of gloss perception by using binocular disparity, Shoji Yamamoto, Tokyo Metropolitan College of Industrial Technology; and Masashi Sawabe, Mayu Yokoya, and Norimichi Tsumura, Chiba University (Japan)

Relationship between PSF and Gonio-reflectance distribution of specular reflection, Shinichi Inoue, Mitsubishi Paper Milles Limited, and Norimichi Tsumura, Chiba University (Japan)

Psychophysical estimation of the best lighting for commercial counters of fruits and vegetables, Osamu Masuda, Hélder Correia, João Linhares, and Sérgio Nascimento, University of Minho (Portugal)

Scene recognition by hyperspectral ratio indexing: how many channels are necessary?, Nsikak Ekpenyong and David H. Foster, University of Manchester (UK)

Studying and modeling the binocular energy for stereoscopic images, Rafik Bensalma and Mohamed-Chaker Larabi, Université de Poitiers (France)

The effect of experimental instructions on the areas identified as important in photographic images, Susan Farnand, Rochester Institute of Technology (USA)

Dichromats' categorical color perception model, Noriko Yata, Chiba University; Tomoharu Nagao, Yokohama National University; and Keiji Uchikawa, Tokyo Institute of Technology (Japan)

Extraction of emotional impact in colour images, Syntyche Gbèhounou, François Lecellier, and Christine Fernandez-Maloigne, Université de Poitiers (France)

Utilization of spectral information in clustering based color image segmentation, Zhengzhe Wu,[1] Ville Heikkinen,[1] Jussi Parkkinen,[1,2] and Markku Hauta-Kasari[1];

[1]University of Eastern Finland (Finland) and [2]Monash University, Sunway Campus (Malaysia)

Wednesday May 9, 2012

8:15 - 9:00
KEYNOTE
Session Chair: Alessandro Rizzi,
Università Degli Studi di Milano (Italy)

What makes a good picture? Reflections on image quality research, Geoff Woolfe, Canon Information Systems Research Australia Pty. Ltd. (Australia)

9:10 - 10:10
COLOUR VISION/COGNITION A
Session Chair: David H. Foster,
University of Manchester (UK)

Judgments about the intensity of the illumination are influenced by the association between colour and luminance in the scene, Eli Brenner, VU University Amsterdam (the Netherlands), and Sérgio Nascimento, University of Minho (Portugal)

Suggesting that the illumination differs between two scenes does not enhance color constancy, Jeroen J.M. Granzier, [1,2] Jeroen B.J. Smeets, [2] and Eli Brenner [2] ; [1]Justus-Liebig-Universität (Germany) and [2]VU University Amsterdam (the Netherlands)

Color correction of faded images using multi-scale gray world algorithm, Wang-Jun Kyung, Dae-Chul Kim, Ho-Gun Ha, and Yeong-Ho Ha, Kyungpook National University (Korea)

10:40 - 12:00
COLOUR VISION/COGNITION B
Session Chair: Alessandro Rizzi,
Università Degli Studi di Milano (Italy)

What is constant in colour constancy?, Jordi Roca-Vila, C.A. Parraga, and Maria Vanrell, Universitat Autònoma de Barcelona (Spain)

Influence of local scene colour on target detection tested by global rearrangement of natural scenes, Kinjiro Amano, David H. Foster, Matthew S. Mould, and John P. Oakley, University of Manchester (UK)

A novel computational tool for aesthetic scoring of digital photography, Fabrizio Ravì and Sebastiano Battiato, University of Catania (Italy)

What is the color of chocolate? - extracting color values of semantic expressions, Albrecht Lindner, [1] Nicolas Bonnier, [2] Yves Lange, [1] and Sabine Süsstrunk [1]; [1]École Polytechnique Fédérale de Lausanne (Switzerland) and [2]Océ Print Logic Technologies (France)

13:30 - 14:50
SPECTRAL COLOUR SCIENCE
Session Chair: Markku Hauta-Kasari,
University of Eastern Finland (Finland)

Reflectance recovery using localised weighted method, Yi-Fan Chou, [1,2] Vien Cheung, [2] Changjun Li, [2] M. Ronnier Luo, [2] and San-Liang Lee [1]; [1]National Taiwan University of Science and Technology (Taiwan) and [2]University of Leeds (UK)

Representing outliers for improved multi-spectral data reduction, Farnaz Agahian and Brian Funt, Simon Fraser University (Canada); and Seyed Hossein Amirshahi, Amirkabir University of Technology (Iran)

Spectrally tunable LED illuminator for vision research, Michal Mackiewicz, [1] Stuart Crichton, [2] Steve Newsome, [3] Robert Gazerro, [4] Graham D. Finlayson, [1] and Anya Hurlbert [2]; [1]University of East Anglia (UK), [2]Newcastle University (UK), [3]Gamma Scientific (USA), and [4]Digital Optics Corporation (USA)

Spectral reflectance estimation from transverse field detectors responses, Miguel A. Martínez, [1] Eva M. Valero, [1] Giacomo Langfelder, [2] and Javier Hernández-Andrés [1]; [1]University of Granada (Spain) and [2]Politecnico di Milano (Italy)

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