

IS&T International Symposium on Electronic Imaging Science and Technology 2016

Retinex at 50

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Color Imaging XXI: Displaying, Processing, Hardcopy, and Applications

Tuesday, February 16, 2016

COLOR/HVEI: Retinex at 50: History Joint Session

Session Chair: Marcelo Bertalmio, Universitat Pompeu Fabra (Spain)

8:50 – 10:10 am

Continental Ballroom 4

This session is jointly sponsored by: Color Imaging XXI: Displaying, Processing, Hardcopy, and Applications, and Human Vision and Electronic Imaging (HVEI) 2016.

8:50 RETINEX-017
Retinexes algorithms: Many spatial processes used to solve many different problems (Invited), John McCann, McCann Imaging (USA)

9:30 RETINEX-018
Designator Retinex, Milano Retinex and the locality issue (Invited), Alessandro Rizzi, Università degli Studi di Milano (Italy)

10:10 – 10:50 am Coffee Break

COLOR/HVEI: Retinex at 50: Spatial Algorithms Joint Session

Session Chair: John McCann, McCann Imaging (USA)

10:50 am – 12:30 pm

Continental Ballroom 4

This session is jointly sponsored by: Color Imaging XXI: Displaying, Processing, Hardcopy, and Applications, and Human Vision and Electronic Imaging (HVEI) 2016.

10:50 RETINEX-019
The oriented difference of Gaussians model of brightness perception (Invited), Mark McCourt and Barbara Blakeslee, North Dakota State University (USA)

11:10 RETINEX-020
A center-surround framework for spatial image processing, Vassilios Vonikakis, Advanced Digital Sciences Center (ADSC) (Singapore)

11:30 RETINEX-021
Retinex-like computations in human lightness perception and their possible realization in visual cortex (Invited), Michael Rudd, University of Washington (USA)

11:50 RETINEX-022
The role of lightness perception in determining the perceived contrast of real world scenes (Invited), David Kane and Marcelo Bertalmio, Universitat Pompeu Fabra (Spain)

12:10 RETINEX-023
Processing astro photographs using Retinex based methods (Invited), Daniele Marini, Alessandro Rizzi, and Cristian Bonanomi, Università degli Studi di Milano (Italy)

12:30 – 2:00 pm Lunch Break

EI 2016 Tuesday Plenary and Symposium Awards

Session Chair: Nitin Sampat (Rochester Institute of Technology)

2:00 – 3:00 PM

Continental Ballroom 5

Pushing computational photography deeper into imaging system design, Ren Ng, University of California, Berkeley (USA)

3:00 – 3:30 pm Coffee Break

RETINEX at 50: Image Processing

Session Chair: Alessandro Rizzi, Università degli Studi di Milano (Italy)

3:30 – 5:30 pm

Continental Ballroom 1

3:30 RETINEX-316
Connections between Retinex, neural models and variational methods (Invited), Marcelo Bertalmio, Universitat Pompeu Fabra (Spain)

4:10 RETINEX-317
Image processing applications through a variational perceptually-based color correction related to Retinex (Invited), Javier Vazquez-Corral¹, Syed Waqas Zamir¹, Adrian Galdran², David Pardo³, and Marcelo Bertalmio¹; ¹Universitat Pompeu Fabra, ²Tecnalia, and ³EHU/UPV and Ikerbasque (Spain)

4:30 RETINEX-318
A generalized white-patch model for fast color cast detection in natural images (Invited), José Luis Lisani¹, Ana Belen Petro¹, Edoardo Provenzi², and Catalina Sbert¹; ¹Universitat des Illes Balears (Spain) and ²Université Paris Descartes (France)

4:50 RETINEX-319
Statistical aspects of space sampling in Retinex models (Invited), Gabriele Gianini, Università degli Studi di Milano (Italy)

5:10
RETINEX Discussion

EI 2016 Symposium Demonstration Session and Exhibit Hall Happy Hour

5:30 – 7:00 PM

Continental Ballroom Foyer