2018 Colour and Visual Computing Symposium (CVCS 2018)

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CVCS 2018

Colour and Visual Computing Symposium

Wednesday 19. September 2018

08:30–08:45 Registration

08:45–09:00 Conference Opening

09:00–09:45 Keynote1 **Holly Rushmeier**: Material Appearance Issues in Cultural Heritage....N/A

09:45–10:00 Coffee Break

10:00–12:00 **Poster Session** (Chair: Jean Baptiste Thomas)

- Novel approach to uniformization of a color space via generic deep learning-based transformation.....1
- Deep learning for dehazing: Comparison and analysis.....5
- Can image quality enhancement methods improve the performance of biometric systems for degraded face images?.....11
- Hand-crafted vs deep features: A quantitative study for pedestrian appearance model.....16
- Melon crack identification and classification using k-means clustering for quality inspection.....22
- Statistics of hyperspectral data/image analysis: Entropy.....27
- A corrected single-constant Kubelka-Munk model for color prediction of pre-colored fiber blends.....N/A
- A key frame based summarization using color features.....33
- Determining the sequence of intersecting lines in document forgery by colorimetric evaluation.....N/A
- A pilot study on Iranian skin color.....39
- Spatially dependent white balance for fill flash photography.....44
- CNN feature similarity: Paintings are more self-similar at all levels.....49
- A deep learning-based human activity recognition in darkness.....55

12:00–13:00 Lunch Break

13:00–13:45 Keynote 2 **Michael Felsberg**: Online Machine Learning for Robot Vision....N/A

13:45–14:00 Coffee Break

14:00–15:00 **Vision Session** (Chair: Holly Rushmeier)

- CEED - A database for image contrast enhancement evaluation.....60
- Colour-To-Greyscale image conversion by linear anisotropic diffusion of perceptual colour metrics.....66
- Methods for psychophysical assessment of colour difference by observers with a colour vision deficiency.....72

15:00–15:20 Coffee Break

15:20–16:20 **Colour Imaging Session** (Chair: Shoji Tominaga)

- Comparison of mosaic patterns for spectral filter arrays.....78
- Dye purification: an image-processing technique for the digital restoration of chromogenic film.....84
- Evaluation of color correction methods for printed surfaces.....89

16:20–16:45 Invited Paper **Patrick Callet:** Transparent Materials Colour and Appearance.....95

16:45–17:45 Colourlab tour (Optional)

19:00–23:00 Conference dinner (Science Center: Brennerigata 1, 2815 Gjøvik)

NTNU
Norwegian University of Science and Technology

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Thursday 20. September 2018

09:00–09:15 Registration & Coffee

09:15–10:00 Keynote 3 **Marcelo Bertalmio:** From Vision Models to Cinema Applications, and Back....N/A

10:00–10:15 Coffee Break

10:15–11:15 **Colour and Light Session** (Chair: Patrick Callet)
- Effects of ambient illumination on text recognition for UI development.....99
- Evaluation of gamut mapping algorithms in different uniform colour spaces.....105
- Photo-realistic style transfer for cinema shoots.....109

11:15–11:30 Coffee Break

11:30–12:30 **Medical Session** (Chair: Azzedine Beghdadi)
- Validation of stereo vision based liver surface reconstruction for image guided surgery.....115
- Stochastic correction of boundary conditions during liver surgery.....121
- Enhancing dermoscopy images to improve melanoma detection.....125

12:30–13:30 Lunch Break

13:30–14:30 **Appearance Session** (Chair: Philipp Urban)
- Dependence of texture classification accuracy on spectral information.....131
- Measurement uncertainty for printed textiles.....137
- Application of spectral statistics to spectral texture discrimination.....143

14:30–14:45 Best Student Paper Award, Closing

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