BIBLIOGRAPHY

I. Color Science: Theory and Principles

[**Berns 2000**] Berns R.S., *Billmeyer and Saltzman's Principles of Color Technology*, 3rd Ed., John Wiley & Sons Inc, New York, USA (2000)

[**Fairchild 2005**] Fairchild M.D., *Color Appearance Models*, 2nd Ed., Wiley-IS&T Series in Imaging Science and Tehnology, Chichester, UK (2005)

[**Hunt 2001**] Hunt, R.W.G., Saturation, superfluous or superior?, *Final Program and Proceedings - IS&T/SID Color Imaging Conference*, 1-5 (2001)

[**Hunt 1998**] Hunt, R.W.G., *Measuring Colour*, Third Ed., Fountain Press, Kingston-upon-Thames, England (1998)

[**Johnson 2000**] Johnson, G.M., Fairchild, M.D., Sharpness rules, *Final Program and Proceedings - IS&T/SID Color Imaging Conference*, 24-30 (2000)

[**Susstrunk 1999**] Susstrunk, S., Buckley, R., Swen, S., Standard RGB color spaces, *Final Program and Proceedings - IS&T/SID Color Imaging Conference*, 127-134 (1999)

II. Color Video Processing

[**Bovik 2005**] Bovik, A., Editor, *Handbook of image and video processing*, 2nd Ed., Elsevier Academic Press, USA (2005)

[**Caviedes 2008**] Caviedes J., Personal Communication (March 28, 2008)

[**de Haan 1999**] de Haan, G., Video format conversion, *Society for Information Display 1999 International Symposium*, 52-57 (1999)

[**de Haan 2003**] de Haan, G., *Video processing for multimedia systems*, 3rd Ed., University Press Eindhoven (2003)

[**Fairchild 2007**] Fairchild, M.D., A color scientist looks at video, *3rd International Workshop on Video Processing and Quality Metrics (VPQM)*, Scottsdale, Invited Paper 1 (2007)

[**Kim 2005**] Kim, C.H., Lee, S., Park, D.S., Kwak, Y., DTV color and image processing: Past, present, and future, *Color Imaging XI: Processing, Hardcopy, and Applications - Proceedings of SPIE - IS&T Electronic Imaging*, **6058**, 60580E (2006)

[**Klompenhouwer 2004**] Klompenhouwer, M. A., de Haan, G., Invited Paper: Video, Display and Processing, *SID International Symposium - Digest Of Technical Papers*, **35**(2), 1466-1469 (2004)

[**Poynton 2003**] Ponton, C., *Digital video and HDTV: algorithms and interfaces*, Morgan Kaufmann, San Francisco, CA (2003)

[**Shen 1997**] Shen, M.Y., Kuo C.C.J., Review of image postprocessing techniques for compression artifact removal, *Proceedings of the SPIE - The International Society for Optical Engineering*, **3164**, 372-382 (1997)

[**Yuen 1998**] Yuen, M., Wu, H.R., A survey of hybrid MC/DPCM/DCT video coding distortions, *Signal Processing*, **70**(3), 247-278 (1998)

III. Emerging Display Technologies

[**Choe 2005**] Choe W.H., Lee, S.D., Kim, C.Y., Studying for multi-primary LCD, *Proceedings of the SPIE - The International Society for Optical Engineering*, **5667**(1), 336-43 (2005)

[**de Haan 2001**] de Haan, G.; Klompenhouwer, M.A., An overview of flaws in emerging television displays and remedial video processing, *IEEE Transactions on Consumer Electronics*, **47**(3), 326-334 (2001)

[**de Haan 2005**] de Haan, G., Zhao, M., Invited paper: Making the best of legacy video on modern displays, *SID International Symposium - Digest Of Technical Papers*, **37**(4), 1863-1866 (2006)

[**de Haan 2007**] de Haan, G., Television Display Processing: Past & Future, *International Conference on Consumer Electronics: Digest of Technical Papers*, 1-2 (2007)

[**DeMarsh 1991**] DeMarsh, L., Colorimetry for HDTV, *IEEE Transactions on Consumer Electronics*, **37**(1), 1-6 (1991)

[**DLP 2008**] DLP website, Texas Instruments, http://www.dlp.com/tech/what.aspx, Accessed May 14, 2008

[**Itoh 2007**] Itoh, S., Tanaka, M., Tonegwa, T., Taniguchi, M., Niiyama, T., Tamura, K., Namikawa, M., Naito, Y., Obara, Y., Toriumi, M., Kobayashi, H., Takeya, Y., Deguchi, K., Kawata, S., Marushima, Y., Fujimura, Y., Nawamaki, K., Kubo, Y., Sato, Y., Kataoka, F., Sakurada, K., Ishibashi, M., Otsu, K., and Tatsuo Yamaura, T., Invited Paper: Development of Field-Emission Display, *SID Symposium Digest 38*, 1297-1300 (2007)

[**Kim 2004**] Kim, M.C., Shin, Y.C., Song Y.R., Lee, S.J., Kim, I.D., Wide gamut multi-primary display for HDTV, CGIV 2004, Second European Conference on Color in Graphics, Imaging, and Vision and Sixth International Symposium on Multispectral Color Science, 248-253 (2004)

[**Kwak 2005**] Kwak, Y., Lee, S.D., Choe, W, Kim, C.Y., Optimal chromaticities of the primaries for wide gamut 3-channel display, Proceedings of SPIE - The International Society for Optical Engineering, **5667**, Proceedings of SPIE-IS&T Electronic Imaging - Color Imaging X: Processing, Hardcopy, and Applications, 319-327 (2005)

[**Lee 2002**] Lee, S.D., Kim, C.Y., Seo, Y.S., Hong, C.W., Color conversion from RGB to RGB+White while preserving hue and saturation, Final Program and Proceedings - IS&T/SID Color Imaging Conference, 287-291 (2002)

[**Murdoch 2006**] Murdoch, M.J., Miller, M.E., Kane, P.J., Perfecting the color reproduction of RGBW OLED, *Final Programs and Proceedings - International Congress of Imaging Science*, 448-51 (2006)

[**Oh 2006**] Oh, H.H., Lee, H.Y., Kim, S.S., Park, D.S. Kim, C.Y., Compensation method for color defects in PDP due to different time responses of phosphors, *Color Imaging XI: Processing, Hardcopy, and Applications - Proceedings of SPIE-IS&T Electronic Imaging*, **6058**, 60580G (2006)

[**Ok 2005**] Ok, H.W., Lee, S.D., Choe, W.H., Park, D.S., Kim, C.H., Color processing for multi-primary display devices, Proceedings - IEEE International Conference on Image Processing, **3**, 980-983 (2005)

[**Pettitt 2001**] Pettitt, G., Walker, B., DLP cinema™ technology: Color management and signal processing, *Final Program and Proceedings - IS&T/SID Color Imaging Conference*, 348-354 (2001)

[**Roth 2007**] Roth, S., Weiss, N., Chorin, M.B., David, I.B., Chen, C.H., Multi-primary LCD for TV applications, **38**(1), *SID International Symposium - Digest of Technical Papers*, 34-37 (2007)

[**Sugiura 2006**] Sugiura, H., Kagawa, S., Kaneko, H., Ozawa, M., Tanizoe, H., Kimura, T., Ueno, H., Wide color gamut displays using LED backlight - signal processing circuits, color calibration system and multi-primaries, *International Conference on Image Processing*, II-9-12 (2006)

[**Sugiura 2007**] Sugiura, H., Kuwata, M., Inoue, Y., Sasagawa, T., Nagase, A., Kagawa, S., Watanabe, N., Someya, J., Invited paper: Laser TV - Ultra wide color gamut in conformity with xvYCC, **38**(1), *SID International Symposium - Digest of Technical Papers*, 12-15 (2007)

IV. Video Quality and Video Quality Assessment

[**Ahumada 1993**] Ahumada, Jr. A.J., Computational image quality metric: a review, *SID Symposium Digest*, **24**, 305-308 (1993)

[**ATIS 2001**] ATIS Technical Report T1.TR.75-2001, Objective perceptual video quality measurement using a JND-based full reference technique (October 2001)

[**Brill 2004**] Brill, M.H., Lubin, J., Costa, P., Wolf, S., Pearson, J, Accuracy and cross-calibration of video quality metrics: new methods from ATIS/T1A1, *Signal Processing: Image Communication*, **19**(2), 101-7 (2004)

[**Caviedes 2000**] Jorge Caviedes, Antoine Drouot, Arnaud Gesnot, and Laurent Rouvellou, Impairment metrics for digital video and their role in objective quality assessment, *Proc. SPIE Int. Soc. Opt. Eng*. **4067**, pt.1-3, 791-800 (2000)

[**Caviedes 2003**] Caviedes J., Oberti F., No-reference quality metric for degraded and enhanced video. *Proc. SPIE*, **5150**, Lugano, Switzerland, 621-632 (2003)

[**Corriveau 1999**] Corriveau, P., Gojmerac, C., Hughes, B., Stelmach, L., All subjective scales are not created equal: the effects of context on different scales, *Signal Processing*, **77**(1), 1-9 (1999)

[**Daly 1993**] Daly, S., The visible differences predictor: an algorithm for the assessment of image fidelity, *Proceedings of the SPIE - The International Society for Optical Engineering*, **1666**, 2-15 (1992)

[**Day 2004**] Day, E.A., Taplin, L., Berns, R.S., Colorimetric characterization of a computer-controlled liquid crystal display, *Color Research and Application*, **29**(5), 365-37 (2004)

[Engeldrum 2001] Engeldrum, P.G., Psychometric Scaling: Avoiding the Pitfalls and Hazards, *Society for Imaging Science and Technology: Image Processing, Image Quality, Image Capture, Systems Conference*, 101-107 (2001)

[Engeldrum 2004] Engeldrum, P.G., A theory of image quality: The image quality circle, *Journal of Imaging Science and Technology*, **48**(5), 447-457 (2004)

[**Fairchild 2003**] Fairchild, M.D., Johnson, G.M., Image appearance modeling, *Proceedings of the SPIE - The International Society for Optical Engineering*, **5007**, 149-156 (2003)

[**Fairchild 2004**] Fairchild, M.D., Johnson, G.M., iCAM framework for image appearance, differences, and quality, *Journal of Electronic Imaging*, **13**(1), 126-38 (2004)

[**Faugeras 1979**] Faugeras, O.D., Digital color image processing within the framework of a human vision model, *IEEE Trans. Acoust. Speech Signal Processing*, **27**(4), 380-393 (1979)

[**ITU 2002**] ITU-R Recommendation BT.500-11, Methodology for the subjective assessment of the quality of television pictures, International Telecommunication Union, Geneva, Switzerland (2002)

[**Libert 2000**] Libert, J.M., Stanger, L., Watson, A.B., Rohaly, A.M., Toward developing a unit of measure and scale of digital video quality: IEEE Broadcast Technology Society Sub-committee on Video Compression Measurements, Proceedings of the SPIE - The International Society for Optical Engineering, **3959**, 160-165 (2000)

[**Lindh 1996**] Lindh, P., van den Branden Lambrecht, C.J., Efficient spatio-temporal decomposition for perceptual processing of video sequences, *Proc ICIP*, Lausanne, Switzerland, **3**, 331-334 (1996)

[**Lubin 1997**] Lubin, J., A human vision system model for objective picture quality measurements, *International Broadcasting Convention*, 498-503 (1997)

[**Lukas 1982**] Lukas, F.X.J., Budrikis, Z.L., Picture quality prediction based on a visual model, *IEEE Trans. Comm.*, **30** (7), 1679-1692, (1982)

[**Mannos 1974**] Mannos, J.L., Sakrison, D.J., The effects of a visual fidelity criterion of the encoding of images. *IEEE Transactions on Information Theory*, **IT-20**(4), 525-36 (1974)

[**Miyahara 1998**] Miyahara, M., Kotani, K., Algazi, V.R., Objective picture quality scale (PQS) for image coding, *IEEE Transactions on Communications*, **46**(9), 1215-26 (1998)

[**Pinson 2003**] Pinson, M.H., Wolf, S., Comparing subjective video quality testing methodologies, *Proceedings of the SPIE - The International Society for Optical Engineering*, **5150**(1), 573-582 (2003)

[**Pearson 1998**] Pearson, D., Viewer response to time-varying video quality, *Proceedings of the SPIE - The International Society for Optical Engineering*, **3299**, 16-25 (1998)

[**Sharma 2003**] Sharma G., *Digital Color Imaging Handbook*, Chapter 5, CRC Press. Ed. 2003a.

[**Tan 1998**] Tan, K.T., Ghanbari, M., Pearson, D.E., An objective measurement tool for MPEG video quality, *Signal Processing*, **70**(3), 279-294 (1998)

[**Thurstone 1927**] Thurstone, L.L., A law of comparative judgments, *Psychological Review*, **34**, 273-287 (1927)

[**Tong 1999**] Xin T., Heeger, D., van den Branden Lambrecht C., Video quality evaluation using ST-CIELAB, *Proceedings of the SPIE - The International Society for Optical Engineering*, **3644**, 185-196 (1999)

[**van den Branden 1996**] van den Branden Lambrecht, C., A working spatio-temporal model of the human visual system for image restoration and quality assessment applications, *Proceedings of the International Conference on Acoustics, Speech and Signal Processing*, Atlanta, GA, 2293-2296, (1996)

[**VQEG 2000**] Rohaly A.M., Corriveau P.J., Libert J., Webster A.A., Baroncini V., Beerends J., Blin J., Contin L., Hamada T., Harrison D., Hekstra A.P., Lubin J., Nishida Y., Nishihara R., Pearson J.C., Pessoa A.F., Pickford N., Schertz A., Visca M., Watson A.B., Winkler S., Video Quality Experts Group: current results and future directions, *Proceedings of the SPIE - The International Society for Optical Engineering*, **4067**(1-3), 742-53 (2000)

[**VQEG 2003**] VQEG Final report from the Video Quality Experts Group on the validation of objective models of video quality assessment – Phase II, Aug. 2003, Available at http://www.its.bldrdoc.gov/vqeg/

[**Watson 1999**] Watson A.B., Hu J., McGowan J.F., Mulligan J.B., Design and performance of a digital video quality metric, *Proceedings of SPIE - The International Society for Optical Engineering*, **3644**, 168-174 (1999)

[**Watson 2001**] Watson A.B., Hu J., McGowan J.F., Digital video quality metric based on human vision, *J Electronic Imaging*, **10**(1), 20-29 (2001)

[Weeks 1999] Weeks, A.R., Sartor, L.J., Myler, H.R., Histogram specification of 24-bit color images in the color difference (C-Y) color space, *Proceedings of SPIE - The International Society for Optical Engineering*, **3646**, 319-329 (1999)

[**Winkler-1 1999**] Winkler, S., A perceptual distortion metric for digital color video, *Proceedings of the SPIE - The International Society for Optical Engineering*, **3644**, 175-84 (1999)

[**Winkler-2 1999**] Winkler, S., Issues in vision modeling for perceptual video quality assessment, *Signal Processing*, **78**(2), 231-252 (1999)

[**Winkler 2001**] Winkler, S., Visual fidelity and perceived quality: toward comprehensive metrics, *Proceedings of the SPIE - The International Society for Optical Engineering*, **4299**, 114-125 (2001)

[**Wolf-1 1997**] Wolf, S., Measuring the end-to-end performance of digital video systems, IEEE Transactions on Broadcasting, **43**(3), 320-328 (1997)

[**Wolf-2 1997**] Wolf, S., Pinson, M. H., Webster, A.A., Cermak, G.W., Tweedy, E.P., Objective and subjective measures of MPEG video quality, *Proc. Society of Motion Picture and Television Engineers*, 160–178 (1997)

[**Wolf-3 1999**] Wolf, S., Pinson, M.H., Spatial-temporal distortion metric for in-service quality monitoring of any digital video system, *Proceedings of the SPIE - The International Society for Optical Engineering*, **3845**, 266-277 (1999)

[**Wu 1997**] Wu, H.R., Yuen, M., A generalized block-edge impairment metric for video coding, *IEEE Signal Processing Letters*, **4**(11), 317-320 (1997)

[Wu 1998] Tuo, W., Joyce, F., Amnon, S., Qualifying Image Quality from Pairwised Comparisons, *International Conference on Digital Printing Technologies*, 564-567 (1998)

[**Wu 2006**] Wu H.R., Rao K.R., *Digital Video Image Quality and Perceptual Coding*, CRC Press, Taylor & Francis Group, Florida, USA (2006)

[**Yu 2000**] Yu, Z., Wu, H.R., Human visual system based objective digital video quality metrics, 5th International Conference on Signal Processing Proceedings and 16th World Computer Congress, **2**(2), 1088-95 (2000)

[**Zhang 1996**] Zhang, X., Wandell, B.A., A spatial extenstion of CIELAB for digital color-image reproduction, *Proc. of the SID symposiums* (1996)

[**Zhao 2005**] Zhao, M., de Haan, G., Subjective evaluation of de-interlacing techniques, *Proceedings of SPIE-IS&T Electronic Imaging - Image and Video Communications and Processing*, **5685**(2), 683-691 (2005)

[**Choi 2007**] Choi, D.H., Jang, I.H., Kim, M.H., Kim, N.C., Color image enhancement based on single-scale retinex with a JND-based nonlinear filter, *IEEE International Symposium on Circuits and Systems*, 3948-3951 (2007)

[Colantoni 2004] Colantoni, P., Bost, N., Tremeau, A., Colorfulness enhancement in λSY color space, *CGIV 2004 - Second European Conference on Color in Graphics, Imaging, and Vision and Sixth International Symposium on Multispectral Color Science*, 161-166 (2004)

[Ebner 1998] Ebner, F., Fairchild, M.D., Development and testing of a color space (IPT) with improved hue uniformity, *Proceedings of the Color Imaging Conference: Color Science, Systems, and Applications*, 8-13 (1998)

[Hague 1994] Hague, G.E., Weeks, A.R., Myler, H.R., Histogram equalization of the saturation component for true-color images using the C-Y color space, *Proceedings of SPIE - The International Society for Optical Engineering*, **2298**, 236-247 (1994)

[**Hsu 2006**] Hsu T., Liu, C.T., Kuo-Jui H., Improved Retinex approach for color image enhancement, *CGIV 2006 - 3rd European Conference on Colour in Graphics, Imaging, and Vision*, 390-393 (2006)

[**Land 1983**] Land E, Recent advances in retinex theory and some implications for cortical computations: color vision and the natural image, *Proc. Natl. Acad. Sci. USA*, **80**, 5163-5169 (1983)

[**Land 1986**] Land, E.H., Recent advances in Retinex Theory, *Vision Research*, **26**(1), 7-21 (1986)

[Lucchese 2001] Lucchese, L., Mitra, S.K., Mukherjee, J., A new algorithm based on saturation and desaturation in the xy chromaticacity diagram for enhancement and re-rendition of color images, *IEEE International Conference on Image Processing*, **2**, 1077-1080 (2001)

[**Meylan 2004**] Meylan, L., Susstrunk, S., Color image enhancement using a Retinex-based adaptive filter, *CGIV 2004 – Second European Conference on Color in Graphics, Imaging, and Vision and Sixth International Symposium on Multispectral Color Science*, 359-363 (2004)

[Moroney 2000] Moroney, N., Local color correction using non-linear masking, *Proceedings of the Color Imaging Conference: Color Science, Systems, and Applications*, 108-111 (2000)

[**Rahman 1996**] Rahman, Z., Jobson, D.J., Woodell, G.A., Multi-scale retinex for color image enhancement, *Proceedings of International Conference on Image Processing*, **3**, 1003-1006 (1996)

[**Rahman 2002**] Rahman, Z., Jobson, D.J., Woodell, G.A., Retinex processing for automatic image enhancement, *Proceedings of SPIE - The International Society for Optical Engineering*, **4662**, 390-401 (2002)

[Samadani 2006] Samadani, R., Li, G., Geometrical methods for lightness adjustment in YCC color spaces, *Color Imaging XI: Processing, Hardcopy, and Applications - Proceedings of SPIE-IS&T Electronic Imaging*, **6058**, 605809 (2006)

[Samadani 2007] Samadani, R; Personal communication (February 22, 2007)

[**SMIL 2005**] Apple Developer Connection; Introduction to SMIL scripting guide for QuickTime; available on http://developer.apple.com/documentation/QuickTime/index.html, last updated June 4, 2005, accessed March 24, 2008

[Strickland 1986] Strickland, R.N., Kim, C.S., McDonnell, W.F., Luminance, hue, and saturation processing of digital color images, *Proceedings of SPIE - The International Society for Optical Engineering*, **697**, 286-292 (1986)

[Strickland 1987] Strickland, R.N., Kim, C.S., McDonnell, W.F., Digital color image enhancement based on the saturation component, *Optical Engineering*, **26**(7), 609-616 (1987)

[Tao 2004] Tao, L., Asari, V., An integrated neighborhood dependent approach for nonlinear enhancement of color images, *International Conference on Information Technology: Coding and Computing*, 138-139 (2004)

[**US Patent 4831434**] Fuchsberger, H., AGFA Gevaert Aktiengesellschaft, Method of correcting color saturation in electronic image processing, US Patent 4,831,434 (May 16, 1989)

[**US Patent 5282021**] Bachmann, P., Christmann, M., Poetsch, D., BTS Broadcast Television Systems, Video hue correction taking account of saturation and luminance, US Patent 5,282,021 (January 25, 1994)

[**US Patent 6028646**] Jeong, J.K., Song, W.J., LG Electronics Inc., Color image enhancement device for video display appliance, US Patent 6,028,646 (February 22, 2000)

[**US Patent 2006//0238655**] Chou, C.H., Pinnacle Patent Law Group, Method and system for automatic color hue and color saturation adjustment of a pixel from a video source, US Patent 2006//0238655 (Oct 26, 2006)

[**US Patent 2007//0070369 A1**] Wang, D., Pixelworks Inc, Processing apparatus and method for enhancing image color, US Patent 2007//0070369 A1 (Mar 29, 2007)

[Yang 1995] Yang, C.C., Rodriguez, J.J., Efficient luminance and saturation processing techniques for bypassing color coordinate transformations, *Proceedings of the IEEE International Conference on Systems, Man and Cybernetics*, **1**, 667-672 (1995)

[Yang 1996] Yang, C. C., Rodriguez, J.J., Saturation clipping in the LHS and YIQ color spaces, *Proceedings of SPIE - The International Society for Optical Engineering*, **2658**, 297-307 (1996)