

# SELECTED PUBLICATIONS

## by the recipients of AIC Judd award

Edited in 2019 by Karin Fridell Anter, as decided by the Executive Committee of AIC.

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The researchers that have received the Judd award are, by this, acknowledged by the AIC to have done work of international importance. Thus the totality of their work is a solid collection of important colour research that should be remembered and used. This list is made with that purpose. It includes up to three publications from each awarded person or group, and also from Deane Brewster Judd, in memory of whom the award is given.

When possible, the publications are suggested by the authors themselves, and for the rest the list is based on suggestions from other researchers. Future Judd award winners will be subsequently added to the list.

For further presentation of the Judd award, the awarded researchers and their work, please see [www.aic-colour.org/judd.htm](http://www.aic-colour.org/judd.htm)

### 2019 Hirohisa Yaguchi                      Japan

Yaguchi, H., J. Luo, M. Kato & Y. Mizokami. 2018a. Computerized simulation of color appearance for anomalous trichromats using the multispectral image. *Journal of the Optical Society of America A* 35-4, pp.B278-B286.

Yaguchi, H., A. Kawada, S. Shioiri & Y. Miyake. 1993. Individual differences of contribution of chromatic channels to brightness, *Journal of the Optical Society of America A*, Vol.10, 1373-1379.

Yaguchi, H. & M. Ikeda. 1983. Subadditivity and superadditivity in heterochromatic brightness matching, *Vision Research*. 23, 1711-1718.

### 2017 Ming Ronnier Luo                      China & Great Britain

Luo, M. R., G. Cui & B. Rigg. 2001. 'The development of the CIE 2000 colour difference formula'. *Color Res. Appl.* 26(5): 340-350.

Luo, M. R., G. Cui & C. Li. 2006. 'Uniform Colour Spaces Based on CIECAM02 Colour Appearance Model'. *Color Res. Appl.* 31(4): 320-330.

Safdar, M., G. Cui, Y. J. Kim & M. R. Luo. 2017. 'Perceptually uniform color space for image signals including high dynamic range and wide gamut'. *Optics Express*, 25(13): 15131-15151.

### 2015 Françoise Viénot                      France

Viénot, F., Brettel, H., Dang T.-V. & Le Rohellec, J. 2012. 'Domain of metamers exciting intrinsically photosensitive retinal ganglion cells (ipRGCs) and rods', *J. Opt. Soc. Am. A* 29(2): A366-A376.

Obein, G., Knoblauch, K. & Viénot, F. 2004. 'Difference scaling of gloss: Nonlinearity, binocularity, and constancy'. *Journal of Vision*, 4(9), 711-720

Brettel H., Viénot F. & Mollon J. 1997. 'Computerized simulation of color appearance for dichromats'. *J. Opt. Soc. Am. A*, 14(10): 2647-2655.

## 2013 Roy Berns

## USA

Berns, R. S. 2016. *Color Science and the Visual Arts: A Guide for Conservators, Curators, and the Curious*. Getty Conservation Institute, Los Angeles.

Berns, R. S. 2000. *Billmeyer and Saltzman's Principles of Color Technology*. 3rd ed. Wiley Interscience, New York.

## 2011 Lucia Ronchi

## Italy

Ronchi, L. 2015. *Lighting, color, environment and complexity. An abridged historical review*. Giorgio Ronchi Foundation, Florence, Vol.71.

Ronchi, L. 2014. 'Warm and Cold Light as Related to Fine Grain of Circadiancy'. *Light & Engineering*, **22**(2):16-22

Ronchi, L. 1993. 'On the transient vs steady visual stimulation. Some temporal aspects of chromatic adaptation', *Proc. AIC 7th Congress, June 13 –18 1993, Budapest, Hungary*

## 2009 Arne Valberg

## Norway

Valberg, A. 1998. 'The Enigma of Unique Hues. On Colour Perception and Neurophysiology'. In: *Colour between Art and Science*. Blomström, K. (ed.). National College of Art and Design, Oslo:128-161.

Valberg, A. 2005. *Light Vision Color*. John Wiley & Sons, Chichester (USA).

## 2007 Alan R. Robertson

## Canada

Robertson, A.R. 1987. 'Diagnostic Performance Evaluation of Spectrophotometers', *Advances in Standards and Methodology in Spectrophotometry*, C. Burgess & K.D. Mielenz, Eds., Elsevier, Amsterdam: 277-286.

Robertson, A.R. 1977. 'The CIE 1976 Color-Difference Formulae', *Color Research and Application*. **2**(1): 7-11.

Robertson, A.R. 1967. 'Colorimetric Significance of Spectrophotometric Errors', *J. Opt. Soc. Am.* **57**(5): 691-698.

## 2005 John B. Hutchings

## Great Britain

Hutchings, J. B., Ou, Li-Chen, & Luo, M. Ronnier. 2012. 'Quantification of scene appearance - a valid design tool?', *Color Research and Application*, **37** [1]:44-52.

Hutchings, J. B. 2004. 'Colour in folklore and tradition – the principles', *Color Research and Application* **29**(1):57-66.

Hutchings, J. B. 1999. *Food Colour and Appearance*, 2<sup>nd</sup> edition, Aspen, Gaithersburg, MD.



## 1993 Yoshinobu Nayatani

Japan

Nayatani, Y., Yano, T., Hashimoto, K. & Sobagaki, H. 1999. 'Proposal of an abridged color appearance model CIECAT94LAB and its field trials'. *Color Research and Application*. **24**(6):422-438.

Nayatani, Y., Sobagaki, H., Hashimoto, K. & Yano, T. 1997. 'Field trials of a nonlinear color-appearance model'. *Color Research and Application*. **22**(4): 240-258.

Nayatani, Y., Sobagaki, H., Hashimoto, K. & Yano, T. 1995. 'Lightness dependency of chroma scales of a nonlinear color-appearance model and its latest formulation'. *Color Research and Application* **20**(3): 156-167.

## 1991 Johannes J. (Hans) Vos, Pieter L. Walraven

The Netherlands

Vos, J.J. 2008. 'Depth in colour, a history of a chapter in *physiologie optique amusante*'. *Clinical and Experimental Optometry* **91**(2): 139-147

Vos, J.J. 2006. 'From lower to higher colour metrics; a historical account'. *Clinical and Experimental Optometry* **89**(6): 348-360

Vos, J.J. & Walraven, P.L. 1971. 'On the derivation of the foveal receptor primaries'. *Vision Research* **11**(8): 799-818.

## 1989 Tarow Indow

Japan, USA

Indow, T. 1999. 'Principal hue curves and color difference'. *Color Research and Application* **24**(4):266-279.

Indow, T., Robertson, A.R., von Grunau, M & Fielder, G.H. 1992. 'Discrimination ellipsoids of aperture and simulated surface color by matching and paired comparisons'. *Color Research and Application* **17**(1):6-23.

Indow, T. & Aoki, N. 1983. 'Multidimensional mapping of 178 Munsell colors'. *Color Research and Application* **8**(3):145-152.

## 1987 Robert William Gainer Hunt

Great Britain

Hunt, R.W.G. & Pointer. M.R. 2011. *Measuring Colour*, 4<sup>th</sup> edition. Wiley, Chichester, England

Hunt, R.W.G. 2004. *The Reproduction of Colour*, 6<sup>th</sup> edition, Wiley, Chichester, England.

Hunt, R.W.G.1952. 'Light and dark adaptation and the perception of colour'. *Journal of the Optical Society of America*, **42**(3), 190-199.

## 1985 Leo Maurice Hurvich, Dorothea Jameson

USA

Hering, E., 1920, translated from German by L. M. Hurvich & D. Jameson 1964: *Outlines of a Theory of the Light Sense*. Harvard University Press, Cambridge, MA.

Hurvich, L. M. & Jameson, D. 1960. 'Color vision'. *Annual Review of Psychology* **11**: 99-130.

Hurvich, L. M. & Jameson, D. 1957. 'An opponent-process theory of color vision'. *Psychological Review* **64** (6, Part I): 384-404.

1983 David Lewis MacAdam      USA

MacAdam, D.L. 1974. 'Uniform color scales'. *Journal of the Optical Society of America*, **64**(12): 1691-1702

Judd, D. B., MacAdam, D. L. & Wyszecki, G. W. et al. 1964. 'Spectral distribution of typical daylight as a function of correlated color temperature'. *Journal of the Optical Society of America*, **54**(8):1031–1040.

MacAdam, D.L. 1942. 'Visual sensitivity to color differences in daylight'. *Journal of the Optical Society of America*, **32**(5): 247-273.

1981 Manfred Richter      Germany

Richter, M. & Witt, K. 1986. 'The story of the DIN colour system'. *Color Research and Application* **11**(2):138-145

Richter, M. 1955: 'The Official German Standard Color Chart'. *Journal of the Optical Society of America*, **45**(3): 223-226.

1979 Gunter Wyszecki      Germany, USA, Canada

Wyszecki, G. & Stiles, W.S. 1967/1982. *Color science: Concepts and methods, quantitative data and formulae*, New York: Wiley

Wyszecki, G. 1972. 'Color Matching and Color-Difference Matching'. *Journal of the Optical Society of America*, **62**(1): 117-128

(see also references under MacAdam and Judd)

1977 William David Wright      Great Britain

Wright, W.D. 1963. 'The Rays are Not Coloured'. *Nature* **198**: 1239 - 1244

Wright, W.D. 1946. *Researches on Normal and Defective Colour Vision*, Henry Kimpton, London, England.

Wright, W.D. 1946/1964. *The Measurement of Colour*, Adam Hilger, London, England/ Van Nostrand, Princeton, N.J.

1975 Dorothy Nickerson      USA

Nickerson, D. 1976. 'Munsell Color System, Company, and Foundation, parts I-III'. *Color Research and Application* **1**(1-3): 7-10, 69-77, 121-130

Nickerson, D. 1946. *Color measurement and its application to the grading of agricultural products : a handbook on the method of disk colorimetry*. U.S. Dept. of Agriculture, Washington, D.C

Nickerson, D. & Stultz, K.F. 1944. 'Color tolerance specification'. *Journal of the Optical Society of America* **34**(9): 550-568.

Deane Brewster Judd      USA

Judd, D.B. 1979. *Contributions to Color Science* (Posthumous selection of 57 articles, ed. D.L. MacAdam). National Bureau of Standards, Washington D.C.

Judd, D.B. 1959. *Color in business, science and industry*, John Wiley & Sons, New York. Second and third editions with Gunter Wyszecki, 1963 and 1975.