

List of Scientific Publications

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(SCI/SCIE journals in **bold**)

Scientific Imaging and Psychometric Scaling

1. Zolliker P, Baranczuk Z: "Error estimation of paired comparison tests for Thurstone's Case V" accepted for *The 5rd European Conference on Colour in Graphics, Imaging and Vision*, Joensuu, Finland, (June 2010).
2. Scheller Lichtenauer M, Hoffstadt H, Kraushaar A, Oberhollenzer B, Zolliker P: Estimation of Backing Influence on Halftone Reflectance" accepted for *The 5rd European Conference on Colour in Graphics, Imaging and Vision*, Joensuu, Finland, (June 2010).
3. Baranczuk Z, Giesen, J, Simon, K, Zolliker P: „Gamut Mapping“ in *Advances in Imaging and Electron Physics* Vol. 160, Editor Peter Hawkes, Elsevier 1-34 (2010).
4. Zolliker P, Sprow I, Baranczuk Z, Giesen J: "Conjoint analysis used for the evaluation of parameterized gamut mapping algorithms", **IEEE Transactions on Image Processing** **19**(3) 758-769 (2010).
5. Baranczuk Z, Zolliker P, Giesen J: „Image quality measure for evaluating gamut mapping.“ In *17th Color Imaging Conference (CIC)*, Albuquerque, NM, USA, 21-26 (Nov 2009).
6. Scheller Lichtenauer M, Mourad S, Zolliker P, Simon K: "Classification of paper images to predict substrate parameters prior to print", Computational Color Imaging Workshop (CCIW 2009). Lecture Notes in Computer Science 5646, 150-159 (2009).
7. Sprow I, Baranczuk Z, Stamm T, Zolliker P: "Web-Based Psychometric Evaluation of Image Quality", *Image Quality and System Performance VI*, Electronic Imaging San Jose USA, SPIE Vol. 7242, 74720A (January 2009).
8. Taneva B, Giesen J, Zolliker P, and Mueller K: "Choice based conjoint analysis: Discrete choice models vs. direct regression". In Proceedings of the *ECML-PKDD Workshop on Preference Learning* (PL-08), Antwerp, Belgium, (Sept 2008).
9. Baranczuk Z, Sprow I, Zolliker P, Giesen J: "Conjoint Analysis of Parameterized Gamut Mapping Algorithms", *16th Color Imaging Conference*, Portland OR, USA, 38-43 (Nov 2008).
10. Wang L, Giesen J, McDonnell K, Zolliker P, Mueller K: „Color Design for Illustrative Visualization“, **IEEE Transactions on Image Processing**, **14**(6) 1739-1754 (2008).
11. Zolliker P, Mourad S, Wenjing S, Halbeisen M, Schmidt H: "Modeling Interference Color on Surface Structured Fibers" *The 4rd European Conference on Colour in Graphics, Imaging and Vision*, Barcelona, Spain, 20-24, (June 2008).
12. Giesen J, Mueller K, Schuberth E, Wang L, Zolliker P: "Conjoint Analysis to Measure the Perceived Quality in Volume Rendering", **IEEE Transactions on Visualization and Computer Graphics** **13** (6), 1664-1671, (2007)
13. Zolliker P, Simon K: "Retaining Local Image Information in Gamut Mapping Algorithms", **IEEE Transaction on Image Processing** **16**(3) 664-672 (2007).
14. Giesen J, Schuberth E, Simon K, Zolliker P, Zweifel O: "Image-Dependent Gamut Mapping as Optimization Problem" **IEEE Transaction on Image Processing** **16**(10) 2401-2410 (2007).
15. Giesen J, Schuberth E, Simon K, Zolliker P: "A Kernel Approach to Gamut Boundary Determination" invited paper to special Session "Color Image Processing" at *Eusipco 2006* Florence, Italy (2006).
16. Zolliker P, Simon K: "Adding Local Contrast to Global Gamut Mapping Algorithms", *The 3rd European Conference on Colour in Graphics, Imaging and Vision*, Leeds, Great Britain, 257-261 (June 2006).
17. Zolliker P, Simon K: „Continuity of gamut mapping algorithms“, **J. Electron. Imaging** **15**, 013004 (March 2006).
18. Giesen J., Schuberth E, Simon K, Zeiter D, Zolliker P: „A framework for image-dependent gamut mapping“, in *Color Imaging XI: Processing, Hardcopy, and Applications*, edited by R.

- Eschbach and G. Marcu, Proceedings of the SPIE-IS&T Electronic Imaging, SPIE Vol. 6058, (2006).
19. Zolliker P, Dätwyler M, Simon K: „On the continuity of gamut mapping algorithms“, in *Color Imaging X: Processing, Hardcopy, and Applications*, edited by R. Eschbach and G. Marcu, Proceedings of the SPIE-IS&T Electronic Imaging, SPIE Vol.5667, 220-233 (2005).
 20. Giesen J, Schuberth E, Simon K, Zolliker P: „Toward Image-Dependent Gamut Mapping: Fast and Accurate Gamut Boundary Determination“, in *Color Imaging X: Processing, Hardcopy, and Applications*, edited by R. Eschbach and G. Marcu, Proceedings of the SPIE-IS&T Electronic Imaging, SPIE Vol.5667, 201-210 (2005).
 21. Zolliker P, Dätwyler M, and Simon K: „Gamut mapping for small destination gamuts“, in Proceedings of the 10th Congress of the International Colour Association, Granada, pp. 345-348, ISBN 84-609-5162-4 (2005).
 22. Steingrimsson U, and Zolliker P: “Assessment of RGB Encoding for Color Imaging”, *10. Workshop Farbbildverarbeitung*, Koblenz: p.103-110; ISBN 3-89959-245-X (2004).
 23. Zolliker P: “Fast Gray Calibration for Digital Photographic Printers”, *The 1st European Conference on Colour in Graphics, Imaging and Vision (CGIV)* Poitiers, France; ISBN / ISSN: 0-89208-239-9; p. 438-441; (April 2002).
 24. Meier R, Zolliker P: “A Color Model for Digital Photo Printing on Silver Halide Paper”, *The 1st European Conference on Colour in Graphics, Imaging and Vision (CGIV)* Poitiers, France; ISBN / ISSN: 0-89208-239-9; p. 442-447 (April 2002).
 25. Heimgartner E, Zolliker P, Meier R: “Color Management in GRETAG’s Digital Imaging Systems CYRA and Masterflex D1008”, *IS&T’s 12th International Symposium on Photofinishing Technologies* Fort Lauderdale, Florida; ISBN / ISSN: 0-89208-237-2; p. 97-101 (February 2002).
 26. Marbach G, Kraft W, Zolliker P: “Eye-Tech Scanning in Hybrid and Digital Printers of Gretag Imaging” *IS&T’s 11th International Symposium on Photofinishing Technologies* Las Vegas, Nevada; ISBN / ISSN: 0-89208-226-7; p. 17-19 (January 2000).
 27. Zolliker P, Kraft W, Wacker R: “Automated Control of Production on the Gretag Imaging Master Flex, Using a Densitometer at the Exit of a Paper Processor” *IS&T’s 10th International Symposium on Photofinishing* New Orleans, Louisiana; ISBN/ISSN: 0-89208-209-7; p. 34 (February 1998).

Metal Hydrides

28. Cerny R, Bonhomme F, Yvon K, Fischer P, Zolliker P, Cox DE, Hewat A: “Hexamagnesium Dicotbalt Undecadeuteride $Mg_6Co_2D_{11}$ - Containing $[CoD_4]^{5-}$ And $[CoD_5]^{4-}$ Complex Anions Conforming to the 18-Electron Rule”. *Journal of Alloys and Compounds* **187** (1): 233-241 (1992).
29. Belin E, Gupta M, Zolliker P, Yvon K: “An Experimental and Theoretical Investigation of the Densities of States of Dimagnesium Cobalt Pentahydride”. *Journal of the Less-Common Metals* **130**: 267-274 (1987).
30. Zolliker P, Yvon K, Baerlocher C, Jorgensen JD, Rotella FJ: “Low-Temperature Structure of Mg_2NiD_4 - A Combined Study of High-Resolution X-Ray and Neutron-Diffraction”. *Journal of the Less-Common Metals* **129**: 208-209 (1987).
31. Zolliker P, Yvon K, Fischer P, Schefer J: “Preparation, Structure and Properties of Mg_2CoH_5 ”. *Journal of the Less-Common Metals* **129**: 211-212 (1987).
32. Zolliker P: “Synthèse, structure et propriétés des hydrures métalliques ternaires Mg_2FeH_6 , Mg_2CoH_5 et Mg_2NiH_4 ”, Thèse No.2246, Université de Genève, (1987).
33. Zolliker P, Yvon K, Jorgensen JD, Rotella FJ: “Structural Studies of the Hydrogen Storage Material Mg_2NiH_4 . 2. Monoclinic Low-Temperature Structure”. *Inorganic Chemistry* **25** (20): 3590-3593 (1986).
34. Zolliker P, Yvon K: “Comments on the Structure Ambiguity of Cubic Mg_2NiH_4 as Found by Neutron Powder Diffraction Analysis”. *Materials Research Bulletin* **21** (4): 415-419 (1986).
35. Zolliker P, Yvon K, Baerlocher C: “Low-Temperature Structure of Mg_2NiH_4 - Evidence for Microtwinning”. *Journal of the Less-Common Metals* **115** (1): 65-78 (1986).
36. Zolliker P, Yvon K, Fischer P, Schefer J: “Dimagnesium Cobalt(I) Pentahydride, Mg_2CoH_5 , Containing Square-Pyramidal $[CoH_5]^{4-}$ Anions”. *Inorganic Chemistry* **24** (24): 4177-4180 (1985).

37. Zolliker P, Yvon K; Fischer P, Schefer J: "Synthesis, Structure and Property of Mg_2CoH_5 ". ***Helvetica Physica Acta* 57** (6): 754-754 (1984).
38. Didisheim JJ, Zolliker P, Yvon K, Fischer P, Schefer J, Gubelmann M, Williams AF: "Dimagnesium Iron(II) Hydride, Mg_2FeH_6 , Containing Octahedral $[FeH_6]^{4-}$ Anions". ***Inorganic Chemistry* 23** (13): 1953-1957 (1984).

High T_c -Superconductor Materials

39. Zolliker P, Cox DE, Parise JB, McCarron EM, Farneth WE: "Neutron and Synchrotron X-Ray Powder-Diffraction Study of $La_2CuO_{(4+\delta)}$ ". ***Physical Review B* 42** (10): 6332-6341 (1990).
40. Sinha SK, Vaknin D, Alvarez MS, Jacobson AJ, Newsam J, Lewandowski JT, Johnston DC, Stassis C, Tranquada JM, Freltoft T, Moudden H, Goldman AI, Zolliker P, Cox DE, Shirane G: "Neutron-Scattering Studies of Antiferromagnetism in the High- T_c Compounds". ***Physica B* 156**: 854-857 (1989).
41. Xu YW, Suenaga M, Tafto J, Sabatini RL, Moodenbaugh AR, Zolliker P: "Microstructure, Lattice-Parameters, and Superconductivity of $YBa_2(Cu_{(1-x)}Fe_x)_3O_{7-\Delta}$ for $0 \leq x \leq 0.33$ ". ***Physical Review B* 39** (10): 6667-6680, Part A (1989).
42. Zolliker P, Cox DE, Tranquada JM, Shirane G: "Neutron-Powder-Diffraction Study of Nuclear and Magnetic-Structure in $YBa_2Cu_{(3-x)}Co_xO_{(7+y)}$ with $x=0.84$ and $y=0.32$ ". ***Physical Review B* 38** (10): 6575-6582 (1988).
43. Tranquada JM, Moudden AH, Goldman AI, Zolliker P, Cox DE, Shirane G, Sinha SK, Vaknin D, Johnston DC, Alvarez MS, Jacobson AJ, Lewandowski JT, Newsam JM: "Antiferromagnetism in $YBa_2Cu_3O_{(6+x)}$ ". ***Physical Review B* 38** (4): 2477-2485 (1988).
44. Tranquada JM, Cox DE, Kunmann W, Moudden H, Shirane G, Suenaga M, Zolliker P, Vaknin D, Sinha SK, Alvarez MS, Jacobson AJ, Johnston DC: "Neutron-Diffraction Determination of Antiferromagnetic Structure of Cu Ions in $YBa_2Cu_3O_{(6+x)}$ with $x = 0.0$ and 0.15 ". ***Physical Review Letters* 60** (2): 156-159 (1988).

Physical Chemistry

45. Fischer P, Zolliker P, Meier BH, Ernst RR, Hewat AW, Jorgensen JD, Rotella FJ: "Structure and Dynamics of Terephthalic Acid from 2-K To 300-K .1. High-Resolution Neutron-Diffraction: Evidence for a Temperature-Dependent Order-Disorder Transition - A Comparison of Reactor and Pulsed Neutron Source Powder Techniques". ***Journal of Solid State Chemistry* 61** (1): 109-125 (1986).
46. Meier BH, Meyer R, Ernst RR, Zolliker P, Furrer A, Halg W: "Neutron-Scattering Study of Dynamically Disordered Hydrogen-Bonds - Terephthalic Acid". ***Chemical Physics Letters* 103** (3): 169-174 (1983).
47. Zolliker P: "Neutronenspektroskopische Untersuchung der Dynamik verschiedener Carboxylsauren", Diplomarbeit publiziert als interner Bericht AF-SSP-121, LNS (Labor fur Neutronenstreuung), ETH Zurich (1982).

Astrophysics

48. Benz AO, Zolliker P: "Polarization of Solar Noise Storm Continuum and Plasma-Wave Density in the Corona". ***Astronomy and Astrophysics* 144** (1): 227-231 (1985).

Cryogenic Engineering

49. Yu D, Eyssa YM, Zolliker P: "Electrical boundary resistance in an aluminum-stabilized superconductor" ***Advances in Cryogenic Engineering* 28** 701-709 (1982).
50. Hartwig KT, Zolliker P, Yu D, VanSciver SW, Khalil A: "Fabrication and performance of an aluminum-stabilized composite superconductor" ***Advances in Cryogenic Engineering* 28** 805-813 (1982).

Patents

(only European patents are listed)

1. Zolliker P, "Color management via reference gamut" EP1370070 (2004).
2. Zolliker P, "Method and apparatus for improving image contrast" EP1365575 (2004).
3. Meier R, Zolliker P, Heimgartner E, „Optimization of digital image data using color management" EP1370071 (2003).
4. Meier R, Zolliker P, "Colour modeling for a photograph" EP1227659 (2002).
5. Zolliker P, Kraft W, "Apparatus for optimizing photographic image data" EP1100255 (2001).
6. Kraft W, Zolliker P, Wacker R, "Process for making photographic copies from photographic originals" EP0825481 (2000).
7. Kraft W, Zolliker P, "Method of producing copies of photographic originals" EP0802449 (1999).
8. Kraft W, Zolliker P, "A method of calibrating a photographic printer", EP0827017 (1998).