Silvia Zuffi

Max Planck Institute for Intelligent Systems
Spemannstr. 41
72076 Tübingen
Germany
silvia.zuffi@mpg.tue.de
http://ps.is.tue.mpg.de/person/zuffi

Personal Information	
	Nationality: Italian.
	Place and date of birth: Rimini, Italy, 3 July 1969.

Education

Phd in **Computer Science**, Brown University, May 2015.
Thesis: *Shape Models of the Human Body for Distributed Inference*.
Advisor: Prof. Michael J. Black.

Master degree in **Computer Science**, Brown University, May 2010.

Master degree in **Electronic Engineering** at the Faculty of Electronic Engineering of the University of Bologna, March 1995.

Thesis (in Italian): *Applicazione di un benchmark di elaborazione delle immagini ad una macchina parallela floating point e analisi delle prestazioni* (Application of the DARPA Image Understanding Benchmark to a parallel computer with SIMD floating point architecture and performance analysis).

Supervisor: Prof. Tullio Salmon Cinotti, – Final mark 100/100 *magna cum laude*.

Work experience

May 2015 – today
Max Planck Institute for Intelligent Systems and Bernstein Center for Computational Neuroscience, Tübingen, Germany.
Position: Bernstein Postdoctoral Fellow.

Feb 1999 – August 2009
Institute for Technologies of Construction, ITC-CNR, (previously Institute for Multimedia Technologies ITIM-CNR), National Research Council, Milano, Italy.
Position: Research Scientist.

January 1998 – February 1999
Movement Analysis Lab., Research Institute Codivilla-Putti, Istituti Ortopedici Rizzoli, Bologna, Italy.
Position: short-term contract for the design of a system for the in-vivo analysis of total knee prosthesis kinematics.

November 1995 – December 1997
Boconsult I.d.S. S.p.A., Bologna, Italy (now Ducati Sistemi S.p.A.).
Position: software design and implementation.

May 1995 – October 1995
Bazis, Leiden, The Netherlands.
Position: EU fellowship for the design and implementation of the Web portal for the EU project CAMIREMA (Case Mix And Resource Management).

Fellowships

1995: EU COMET fellowship, May 1995, for 6 months.

2010: EU-7FP Marie Curie IOF, grant agreement 235633 BoCap "Bone motion Capture from video sequences", *declined*.

Publications

International Journals

S. Zuffi, R. Eschbach, C. Brambilla, A. Rizzi, "Comparing Image Preference in Controlled and Uncontrolled Viewing Conditions", Journal of Electronic Imaging, No. 19, 2010.

S.Zuffi, S. Santini, R. Schettini, "From Color Sensor Space to Feasible Reflectance Spectra", IEEE Transactions on Signal Processing, Vol. 56, No. 2, pp.518–531, 2008.

R. Schettini, S. Zuffi, "A Computational Strategy Exploiting Genetic Algorithms to Recover Color Surface Reflectance Functions", Neural Computing & Applications, Vol. 16, No.1, pp. 69-79, 2007.

S. Zuffi, S. Santini, R. Schettini, "Accounting for Inks Interaction in the Yule Nielsen Spectral Neugebauer Model", Journal of Imaging Science and Technology, Vol. 50, No.1, pp. 35-44, 2006.

S. Zuffi, R. Schettini, G. Mauri, "Spectral-based printer modeling and characterization", Journal of Electronic Imaging, Vol. 14, No.2, 2005.

G. Ciocca, D. Marini, A. Rizzi, R. Schettini, S. Zuffi, "Retinex pre-processing of uncalibrated images for color-based image retrieval", Journal of Electronic Imaging, Vol. 12, No. 1, pp. 161-172, 2003.

P. Campadelli, R. Schettini, S. Zuffi, "A system for the automatic selection of conspicuous color sets for qualitative data display", IEEE Trans. on Geoscience and Remote Sensing, Vol. 39, No. 10, pp. 2283–2286, 2001.

S. Zuffi, A. Leardini, F. Catani, S. Fantozzi, A. Cappello, "A model-based method for the reconstruction of total knee replacement kinematics", IEEE Transactions on Medical Imaging, Vol.18, No.10, pp. 981-991, 1999.

Book Chapters

S. Bianco, A. Colombo, F. Gasparini, R. Schettini, S. Zuffi, "Applications of Spectral Imaging and Reproduction to Cultural Heritage", in Digital Imaging for Cultural Heritage Preservation, Digital Imaging and Computer Vision series (F. Stanco, S. Battiato, G. Gallo eds.), Taylor & Francis, 2011.

R. Schettini, G. Ciocca, S. Zuffi, "A survey on methods for colour image indexing and retrieval in image databases", Color Imaging Science: Exploiting Digital Media, (R. Luo, L. MacDonald eds.), J. Wiley, pp. 183-211, 2002.

Technical Reports

S. Zuffi, M. J. Black, "Puppet Flow", Technical Report 7, Max Planck Institute for Intelligent Systems, 2013.

S. Zuffi, P. Scala, C. Brambilla, G. Beretta, "Web based vs. Controlled Environment Psychophysics Experiments", Hewlett Packard Technical Report, HPL-2006-187.

S. Zuffi, G. Beretta, C. Brambilla, "A color selection tool for the readability of textual information on Web pages", Hewlett Packard Technical Report, HPL-2005-216, 20051207.

International Conferences

S. Zuffi, M.J. Black, "The Stitched Puppet: a Graphical Model of 3D Human Shape and Pose", *IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, IEEE, Boston, MA, June 2015.

J. Pacheco, S. Zuffi, M. J. Black, and E. Sudderth, "Preserving Modes and Messages via Diverse Particle Selection", *Proceedings of International Conference on Machine Learning (ICML)*, Beijing, China, June 2014.

S. Zuffi, J. Romero, C. Schmid, M. J. Black, Estimating Human Pose with Flowing Puppets", *IEEE International Conference on Computer Vision (ICCV)*, pages 3312-3319, Sydney, Australia, December 2013.

H. Jhuang, J. Gall, S. Zuffi, C. Schmid, and M. J. Black, "Towards understanding action recognition", *IEEE International Conference on Computer Vision (ICCV)*, IEEE, pages 3192-3199, Sydney, Australia, December 2013.

S. Zuffi, O. Freifeld, M.J. Black, "From Pictorial Structures to Deformable Structures", *IEEE Conf. on Computer Vision and Pattern Recognition (CVPR)*, IEEE, pages 3546-3553, Providence, RI, June 2012.

O. Freifeld, A. Weiss, S. Zuffi, M.J. Black, "Contour People: A Parameterized Model of 2D Articulated Human Shape", *IEEE Conf. on Computer Vision and Pattern Recognition, (CVPR)*, IEEE, pages 639-646, San Francisco, CA, June 2010.

S. Zuffi, C. Brambilla, R. Eschbach, A. Rizzi, "A study on the equivalence of controlled and uncontrolled visual experiments", Proc. SPIE vol. 7241, Color Imaging XIV: Displaying, Processing, Hardcopy, and Applications, Electronic Imaging Conference, pp. 724102.1-724102.11, San Jose, CA, January 2009.

S. Zuffi, C. Brambilla, R. Eschbach, A. Rizzi, "Controlled and Uncontrolled Viewing Conditions in the Evaluation of Prints", Proc. SPIE vol. 6807, Color Imaging XIII: Processing, Hardcopy and Applications, Electronic Imaging Conference, pp. 680714-680714-7, San Jose, CA, January 2008.

S. Zuffi, E. Beltrame, P. Scala, "Visual Experiments on the Web: Design of a Web-based Visual Experiment Management System", Proc. SPIE vol. 6808, Image Quality and System Performance V, Electronic Imaging Conference, pp. 68080O.1-68080O.7, San Jose, CA, January 2008.

C. Madden, M. Piccardi, S. Zuffi, "Comparison of Techniques for Mitigating

the Effects of Illumination Variations on the Appearance of Human Targets", 3rd International Symposium on Visual Computing (ISVC07), Lake Tahoe, CA, November 2007.

S. Zuffi, C. Brambilla, G. Beretta, P. Scala, "Human Computer Interaction: Legibility and Contrast", Proc. 14th IEEE International Conference on Image Analysis and Processing (ICIAP), pp. 241-246, Modena, Italy, September 2007.

S. Zuffi, P. Scala, C. Brambilla, G. Beretta, "Web based vs. Controlled Environment Psychophysics Experiments", Proc. SPIE vol. 6494, Image Quality and System Performance IV, Electronic Imaging Conference, pp. 649407.1-649407.8, San Jose, CA, January 2007.

Alfredo De Massis, Anna Della Ventura, Giammarco Tosi, and Silvia Zuffi, "Promoting Cultural Tourism Across the Mediterranean: an Experience in the Framework of the Eumedis Program", International Tourism Conference, Alanya, Turkey, November 2006.

A. De Massis, A. Della Ventura, T. Karathanasis, G. Tosi, S. Zuffi, "Promoting Cultural Tourism across Mediterranean Countries through ICT technologies: The Daedalus Project", *Enter 2006*, Lausanne, Switzerland, published in Information and Communication Technologies in Tourism 2006, (M. Hitz, M. Sigala, J. Murphy eds.), Springer Computer Science.

S. Zuffi, G. Beretta, C. Brambilla, "A Color Selection Tool for the Readability of Textual Information on Web pages ", Proc. IS&T/SPIE, Internet Imaging VII, Electronic Imaging Conference, Vol. 6061, paper n. 606108, pp. 606108.1-606108.9, San Jose, CA, January 2006.

S. Zuffi, I. Gagliardi, "A color interface for audio clustering visualization", Internet Imaging, Proceedings of SPIE, San Jose, CA, January 2006.

S. Zuffi, S. Santini, R. Schettini, "Correcting for non feasible values in reflectance function estimation using linear models", AIC 2005, Granada, Spain, May 2005.

C. Cusano, R. Schettini, S. Zuffi, "3D Color Printer Explorer", AIC 2005, Granada, Spain, May 2005.

S. Zuffi, R. Schettini, "Using Recovered Reflectance to Predict Color", *Color Imaging X: Processing, Hardcopy, and Applications*, Proceedings of SPIE (R. Eschbach, G.G. Marcu eds.), San Jose, California, January 2005.

S. Zuffi, "Colorimetric and spectral-based printing: a simple comparison", *Color Imaging X: Processing, Hardcopy, and Applications*, Proceedings of SPIE (R. Eschbach, G.G. Marcu eds.), San Jose, California, January 2005.

S. Zuffi, R. Schettini, "Modeling Dot Gain and Inks Interaction", The 12th Color Imaging Conference, Scottsdale, Arizona, November 2004.

S. Zuffi, R. Schettini, "Reflectance functions estimation from tri-stimulus values", *Color Imaging IX: Processing, Hardcopy, and Applications*, Proceedings of SPIE Vol. 5293 (R. Eschbach, G.G. Marcu eds.), pp. 222-231, San Josè, CA, January 2004.

R. Schettini, D. Bianucci, G. Mauri, S. Zuffi, "An empirical approach for

spectral color printers characterization", CGIV 2004: IS&T's Second European Conference on Color in Graphics, Imaging and Vision, Aachen, Germany, April 2004.

S. Zuffi, R. Schettini, G. Mauri, "Spectral-Based Characterization of Inkjet Printers by Neural and Genetic Algorithms", *IS&T PICS 2003: The Conference on Image Processing, Image Quality, Image Capture, Systems*, pp. 479-484, Rochester, New York, May 2003.

S. Zuffi, R. Schettini, G. Mauri, "Using genetic algorithms for spectral-based printer characterization", *Color Imaging VIII: Processing, Hardcopy, and Applications*, Proceedings of SPIE Vol. 5008 (R. Eschbach, G.G. Marcu eds.), pp. 268-275, Santa Clara, CA, January 2003.

S. Zuffi, R. Schettini, "Spectral-Based Printer Characterization", *IS&T CGIV 2002: The First European Conference on Color, Graphics, and Vision*, Poitiers, France, April 2002.

S. Zuffi, R. Schettini, "Innovative method for spectral-based printer characterization", *Color Imaging: Device-Independent Color, Color Hardcopy, and Applications VII,* Proceedings of SPIE Vol. 4663 (R. Eschbach, G.G. Marcu eds.), pp.1-7, San Jose, CA, January 2002.

G. Ciocca, D. Marini, A. Rizzi, R. Schettini, S. Zuffi, "Image retrieval of uncalibrated images", *Proceedings of IEEE Conference on Content-Based Multimedia Indexing*, pp.199-206, Brescia, Italy, September 2001.

G. Ciocca, I. Gagliardi, R. Schettini, S. Zuffi, "Interective search in WEB catalogues", *IEEE International Conference on Enterprise Information Systems*, pp. 249-254, Setúbal, Portugal, July 2001.

P. Campadelli, R. Schettini, S. Zuffi, "A system for the automatic selection of conspicuous color sets for qualitative data display and visual interface design", *Color Imaging: Device-Independent Color, Color Hardcopy, and Graphics arts VI*, Proceedings of SPIE Vol. 4300 (R. Eschbach, G.G. Marcu eds.), pp. 273-277, San Jose, CA, January 2001.

A.Rizzi, G. Ciocca, D. Marini, R. Schettini, S. Zuffi, "On pre-filtering with Retinex in color image retrieval", *Internet Imaging II*, Proceedings of SPIE Vol. 4311 (G.B. Beretta, R. Schettini eds.), pp. 140-147, San Jose, CA, January 2001.

R. Schettini, G. Ciocca, S. Zuffi, "Color in database: indexing and similarity", *First International Conference on Color in Graphics and Image Processing*, CGIP'2000, Saint-Etienne, France, October 2000. Keynote.

G. Ciocca, R. Schettini, S. Zuffi, "Open-ended search in high quality image catalogues", *International Conference on Advances in Infrastructure for Electronic Business, Science, and Education on the Internet*, L'Aquila, Italy, August 2000.

P. De Sabbata, S. Zuffi, A.I. Correia, G. Benatti, S. Fantin, "ISHTAR: an architecture for a high quality electronic catalogue on Internet", *Internet Imaging Conference*, Proc. of SPIE vol. 3964, San Jose, CA, January 2000.

S. Fantozzi, S. Zuffi, A. Leardini, F. Catani and A. Cappello, "Validation of a novel technique for the reconstruction of total knee replacement

kinematics", *European Medical and Biological Engineering Conference EMBEC'99*, Vienna, Austria, November 1999.

S. Zuffi, S., Leardini, A., Catani, F, Fantozzi, S and Cappello, A "A Model Based Method for the Reconstruction of Total Knee Replacement Kinematics", 4th *International Symposium on Computer Methods in Biomechanics and Biomedical Engineering*, Lisbon, Portugal, October 1999.

A.Della Ventura, R. Schettini, S. Zuffi, "Color management and reproduction in applications regarding cultural artifacts", 2nd International Congress on "*Science and technology for the safeguard of cultural heritage in the Mediterranean basin*", Paris, France, July 1999.

S.Zuffi, A.Leardini, A.Cappello, F.Catani, S.Fantozzi, S. Giannini, "In-vivo TKR Kinematics using Sagittal Fluoroscopy", *Conference of the European Orthopaedic Research Society*, Bruxelles, June 1999.

M. Piccardi, T. Salmon Cinotti, S. Zuffi, "A preliminary performance evaluation of the Quadrics architecture with the DARPA Image Understanding benchmark", Proc. HPCN 95 - *Int. Conf. on High Performance Computing and Networking*, Milano, Italy, May 1995: *Lecture Notes in Computer Science* v. 919, Springer-Verlag, Berlin, 1995.