

David F. McAllister

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Education:

1972 - Ph.D. Computer Science, University of North Carolina at Chapel Hill
1967 - M.S. Mathematics, Purdue University
1963 - B.S. Mathematics, University of North Carolina at Chapel Hill
Fields of Specialization: Computer Graphics, 3D Display Technology, Software Reliability, Fault-Tolerant Systems, Performance Evaluation, Voice Processing, Speaker and Artist Identification, Electronic Publishing, Numerical Analysis, Jazz Pianist

Employment:

1994-2014 Vice President, C&M Online Media, Inc. (electronic and print book publisher)
2005-present Professor Emeritus, Computer Science, NCSU
1982 - 2005 Professor of Computer Science, NCSU
1976 - 1982 Associate Professor of Computer Science, NCSU
1974 - 1977 Consultant - EPA computer center
1972 - 1976 Assistant Professor of Computer Science, NCSU
1967 - 1972 Instructor-Department of Mathematics, UNC-Greensboro
1965 - 1967 Graduate Teaching Assistant-Purdue University
1963 - 1965 Communications Officer-United States Navy
1960 - 1963 Programmer, UNC-Chapel Hill

Honorary and Professional Societies:

ACM, IEEE, Sigma Xi Honorary Research Society, Pi Mu Epsilon Honorary Math Society, Omega Rho Honorary OR Society, Upsilon Pi Epsilon Honorary Computer Science Society, SID, SPIE, SIGGRAPH, Author's Guild

Editorial Boards:

Journal of Virtual Reality and Broadcasting
Journal of Operational Research

RESEARCH CONTRIBUTIONS

Patents

No. 5,689,316: Depth sampling three-dimensional image display apparatus, Nov. 18, 1997 (with Tomohiko Hattori and Sadayuki Sakuma)

Books

1. D. F. McAllister (Ed.) Stereo Computer Graphics and other True 3D Technologies, Princeton U. Press, Princeton, NJ, Oct. 1993
2. D. F. McAllister and W. E. Robbins, True Three-Dimensional Imaging Techniques and Display Technologies, Vol. 761, SPIE Proceedings, 1987
3. D. F. Stanat and D. F. McAllister, Discrete Mathematics in Computer Science, Prentice-Hall, 1977

Book Chapters

1. D. F. McAllister, "3D Displays," in Wiley Encyclopedia on Imaging, Jan., 2002, pp. 1327-1344
2. D. F. McAllister and Nancy C. McAllister, "Electronic Publishing," in My Literary Agent, by Bonita K. Nelson, 1997, Boson Books, Raleigh, NC
3. "Fault-Tolerant Software Reliability Engineering," in Handbook of Software Reliability Engineering, M.R. Lyu, Ed., McGraw-Hill, 1996, pp. 567-614. (with M.A. Vouk)
4. "Implementation Issues in Interactive Stereo Graphics," in Stereo Computer Graphics and other True 3D Technologies, Princeton U. Press, Princeton, NJ, Oct. 1993 (with Lou Harrison)
5. "Introduction to Stereo Computer Graphics," in Stereo Computer Graphics and other True 3D Technologies, Princeton U. Press, Princeton, NJ, Oct. 1993
6. "Computing Stereographic Views," in Stereo Computer Graphics and other True 3D Technologies, Princeton U. Press, Princeton, NJ, Oct. 1993 (with L. Hodges)
7. J. A. Roulier, D. F. McAllister, "Approximation by Convex Quadratic Splines," Approx. Theory III, E.W. Cheney, Ed., Academic Press, 1980, pp. 757-761
8. "Stereo Computer Graphics," in State of the Art in Computer Graphics - Aspects of Visualization, D. F. Rogers, R. A. Earnshaw, Eds. Springer-Verlag, Dec. 1993, pp. 143-175
9. "Distributed Computer Systems: Methodology and Case Study," in Advances in Distributed Processing Management, Vol. II, 1981 (with L. E. Deimal and R. J. Fornaro)

Journal Articles

1. Syed A. Hussain and David F. McAllister, "The Effectiveness of 2D-3D Converters in Rendering Natural Water Phenomena", International Journal on Recent Trends in Engineering and Technology, Volume 8, No. 1, pages 18-22, 2013
2. Dorothy C. Strickland, David McAllister, Claire D. Coles, and Susan Osborne, " An Evolution of Virtual Reality Training Designs for Children with Autism and Fetal Alcohol Spectrum Disorders," Top Lang Disorders, Vol. 27, No. 3, pp. 226-241, 2007
3. Celeste M. Mayer, Donald H. Mershon, Raymond W. Lim, M. Ryan Chipley and David F. McAllister, "Visual Factors Affecting Touchdown Point Judgments During Off-Airport Emergency Landings," The International Journal of Aviation Psychology, Vol. 16, No. 4, pp. 401-418, 2006
4. Rodman, R., McAllister, D., Bitzer, D., Cepeda, L., and Abbitt, P. "Forensic Speaker

Identification Based on Spectral Moments," *Forensic Linguistics*, 9(1), pp 22-43, 2002.

5. D. F. McAllister, "Stereo and 3-D Display Technologies," *Encyclopedia of Imaging Science and Technology*, Jan., '02, pp. 1327-1344

6. R. Keith Scott, D.F. McAllister, "Cost Modeling of N-version Fault-Tolerant Software Systems for Large N," *IEEE Trans. on. Reliability*, Vol., 20, No. 2, Sept., 1998

7. Mladen A. Vouk, David F. McAllister, David E. Eckhardt, Kalhee Kim, "An Empirical Evaluation of Consensus Voting and Consensus Recovery Block Reliability in the Presence of Failure Correlation," *Journal Computer and Software Engineering, Special Issue on Reliable Software*, pp. 367-388, Vol. 1, No. 4, Aug, 1993

8. D. E. Eckhardt, Alper K. Caglayan, John P.J. Kelly, John C. Knight, Larry D. Lee, David F. McAllister, Mladen Vouk, "An Experimental Evaluation of Software Redundancy as a Strategy for Improving Reliability," *IEEE Trans. Soft. Eng.*, Vol 17, No. 7, July 1991, pp. 692-702, Reprinted in *Fault-Tolerant Software Systems: Techniques and Applications*, ed. Hoang Pham, IEEE Computer Society Press, pp. 72-82, 1992

9. Tomohiko Hattori, David F. McAllister, Sadayuki Sakuma, "Spatial Modulation Display Using Spatial Light Modulators," *J. Optical Engineering*, Vol. 131, No. 2, pp. 350-352, Feb. 1992

10. David F. McAllister, Don Carver, Ravinder Devarajan, Lou Harrison, Jerry L. Pietenpol, Sz-hung Yang, "An Interactive Computer Graphics System for the Design of Moulded and Orthopedic Shoe Lasts," *VA Journal of Research and Development*, Vol. 28, No. 4, Fall, 1991, pp. 39-46

11. "Computer Modeling of Depth Enhancement by Vertical Parallax Induction," *Optical Engineering*, January 1991 (with P. Barham and L. Harrison)

12. Larry F. Hodges, Shaun Love, David F. McAllister, "Holographic Display of three-dimensional images," *Information Display*, Vol. 3, No. 9, October, 1987, pp. 8-11

13. "Rotation Algorithm Artifacts in Stereoscopic Images," *Optical Engineering*, Vol. 29, No. 8, August 1990, pp. 973-976 (with L.F. Hodges)

14. H. Troy Nagle, Peter Santago, Thomas K. Miller, David F. McAllister, Ravi Mehrotra, "Fault Tolerance for Single Events," *Journal of Radiation Effects*, Vol. 6, No. 2, September 1988, pp. 155-170

15. S. L. Dodd, David F. McAllister, "Shape Preserving Approximation," *J. Comp. Aided Geom. Design*, 1990

16. "Automatic Tension Adjustment for Interpolatory Splines," *IEEE CG&A*, Vol. 10, No. 1, Jan. 1990, pp. 10-17, (with G. Y. Fletcher)

17. Larry F. Hodges, Shaun Love, David F. McAllister, "Hard copy for True Three-Dimensional Images," *Information Display*, Vol. 3, No. 8, September, 1987, pp. 12-15

18. G. Yates Fletcher, David F. McAllister, "A Tension Compatible Patch for Shape Preserving Surface Interpolation," *IEEE Comp. Graphics and Appl.*, Vol., 9, No. 3, May 1989, pp. 45-55

19. "Reliability of Voting in Fault-Tolerant Software Systems for Small Output Spaces," *IEEE Trans. Reliability*, Vol. 39, No. 5, pp. 524-534, 1990 (with C. E. Sun and M. A. Vouk)

20. Larry F. Hodges, David F. McAllister, " True Three-dimensional CRT-Based Displays," *Information Display*, Vol. 3, No. 5, May, 1987, pp. 18-22

21. Soo Kar Leow, David F. McAllister, "Heuristic Assignments of Redundant Software Versions and Processors in Fault-Tolerant Computer Systems for Maximum Reliability," *Probability in the Engineering and Informational Sciences*, 1, 1987, pp. 457-479
22. S.W. Kiu, D.F. McAllister, "Reliability Optimization of Computer Communication Networks," *IEEE Trans. Reliability*, Vol. 37, No. 5, December 1988, pp. 475-483
23. "Reliability Polynomials of Computer Communication Networks," *Microelectronics and Reliability*, Vol. 26, No. 6, pp. 1173-1182 1987 (with S.W. Kiu)
24. Soo Kar Leow, David F. McAllister, "Optimal Assignment of Versions and Processors in Fault-tolerant Systems," *Asia-Pacific Journal of Operations Research*, Vol. 5, No. 1, May 1988, pp. 67-78
25. R. Keith Scott, James W. Gault, David F. McAllister, "Fault-Tolerant Software Reliability Modeling," *IEEE J. Software Engineering*, Vol. SE-13, No. 5, pp. 582-592, May 1987
26. Sun-Wah Kiu, David F. McAllister, "Optimization of Recovery Block Fault-Tolerant Programs," *IEEE Journal Software Engineering*, 1987
27. Larry F. Hodges, David F. McAllister, "Stereo and Alternating Pair Techniques for Display of Computer Generated Images," *IEEE CG&A*, Vol.5, No. 9, Sept. 1985, pp. 38-45
28. G.Yates Fletcher, David F. McAllister, "An Analysis of Tension Methods for Convexity Preserving Interpolation," *IEEE CG&A*, August, 1988, pp. 7-14
29. G.Yates Fletcher, David F. McAllister, "A Natural Bias Approach to Shape Preserving Curves," *CAGD*, Vol. 18, No. 1, February 1986, pp. 48-52, Color Plates C1-C2
30. S. L. Dodd, D.F. McAllister, "Algorithms for Computing Shape Preserving Approximations to Data," *Num. Math.* 46, pp.159-174 (1985)
31. D. F McAllister, G. W. Stewart, W.J. Stewart, "On a Rayleigh-Ritz Refinement Technique for Nearly Uncoupled Stochastic Matrices," *Lin. Alg. and Appl.* Vol. 60, pp. 1-25, August, 1984
32. J. Robert Koury, David F. McAllister, William J. Stewart, "Iterative Methods for Computing Stationary Distributions of Nearly Completely Decomposable Markov Chains," *SIAM J. SSC.* 1983
33. Lionel E. Deimel, Robert J. Fornaro, David F. McAllister, Calvin Lee Doss, III, "Techniques for Computerized Lake and River Fills in Digital Terrain Models," *Photogrammetric Eng. and Remote Sensing*, Vol. 48, No. 9, September, 1982, pp. 1431-1436
34. S. L. Dodd, D. F. McAllister, J.A. Roulier, "Shape Preserving Spline Interpolation for Specifying Bivariate Functions on Grids," *IEEE CG & A*, Vol. 3, No. 6, September, 1983, pp. 70-79
35. David F. McAllister, John A. Roulier, "Algorithm 574, Shape Preserving Osculatory Quadratic Splines," *TOMS*, Vol 7. No. 3, September 1981, pp. 384-386
36. David F. McAllister, John A. Roulier, "An Algorithm for Computing a Shape Preserving Osculatory Quadratic Spline," *TOMS*, Vol. 7, No. 3, September, 1981, pp. 331-347
37. David F. McAllister, John A. Roulier, "Interpolation by Convex Quadratic Splines," *Math. Comp.* Vol. 32, No. 144, pp. 1154-1162
38. David F. McAllister, Eli Passow, John A. Roulier, "Algorithms for Computing Shape Preserving Spline

Interpolations to Data," Math. Comp. Vol. 31, No. 139, July 1977, pp. 717-725

39. William K. Bates, David F. McAllister, "Some Methods for Nonlinear Regression Using Desk-top Calculators with an Application of the Lowry Protein Method," Anal. Biochem, 59, 1974, pp. 190-199

Refereed Conference Papers

1. Syed Hussein, David F. McAllister, "Stereo Rendering of Photorealistic Precipitation," Proceedings SPIE, Stereoscopic Displays and Applications, XXVIII, February 2017
2. Min Qi, Bo-Fei Zhu, David F. McAllister, "A Method to Estimate the light source of a hill-shading map and recover the terrain height," 2015 International Conference on Simulation, Modeling, and Mathematical Statistics
3. Syed A. Hussain and David F. McAllister, "Stereo Rendering of Rain in Real-time," Proceedings SPIE 8648, Stereoscopic Displays and Applications XXIV, 86480B, March 2013
4. John Bass and David McAllister, "Musician Identification with Tempo Performance Data," The Second International Conference on Complexity, Informatics and Cybernetics (IMCIC 2011), March, 2011
5. D. F. McAllister, Y. Zhou and S. Sullivan, "Methods for computing color anaglyphs," Proceedings IS&T/SPIE Electronic Imaging, January 2010, San Jose, CA, Stereoscopic Displays and Applications XXI, Vol. 7524 OS
6. Benjamin M. Rose and David F. McAllister, "Real-time photorealistic stereoscopic rendering of fire," EI '07, Stereoscopic Displays and Virtual Reality Systems IX, Jan. 2007
7. Jamie Taylor, Donald Bitzer, Robert Rodman, David McAllister, "Extracting Phase from Voiced Speech," SPECOM 2006, St. Petersburg, 25-29 June '06
8. Jamie Taylor, Donald L. Bitzer, Robert Rodman, David F. McAllister, "Phase variance probability signatures for classification of voiced speech," 8th International Conf. on Signal Processing, Jan. 2006
9. Zhe Zhang and David F. McAllister, "A Uniform Metric for Anaglyph Calculation," EI '06, Stereoscopic Displays and Virtual Reality Systems XIII, Jan. 2006
10. Tyler Johnson and David F. McAllister, "Realtime stereo imaging of Gaseous Phenomena," Proc. SPIE Vol. 5664, p. 92-103, Stereoscopic Displays and Virtual Reality Systems XII; Andrew J. Woods, Mark T. Bolas, John O. Merritt, Ian E. McDowall; Eds., Jan. 2005
11. Eriksson, E.J., Cepeda, L.F., Rodman, R. D., McAllister, D.F., Bitzer, D., Arroyo, P. "Robustness of spectral moments: a study using voice imitations," Proceedings of the Tenth Australian International Conference on Speech Science and Technology, MacQuarie University, Sydney, Australia, pp. 33-43, Dec. 2004.
12. Eriksson, E.J., Cepeda, L.F., Rodman, R. D., McAllister, D.F., Bitzer, D., Arroyo, P. "Cross-language speaker identification using spectral moments," Proceedings of FONETIK 2004: The XVIIth Swedish Phonetics Conference, Stockholm, pp. 76-79, May, 2004
13. David F. McAllister, Phillippe Loher, Robert D. Rodman, Meng Wang, Jamie Taylor, and Donald Bitzer., "A Fully Automated System of Spontaneous Speech Lip Synchronization." Proceedings

of the Eighth International Symposium on Social Communication, Santiago de Cuba, Cuba, 2003, pp. 610-614

14. W. Sanders and D. F. McAllister, "Producing Anaglyphs from Synthetic Images," Proc. SPIE, Vol. 5006, pp. 348-358, 2003

15. Celeste M. Mayer, Donald H. Mershon, Raymond Lim, Ryan Chipley, David F. McAllister, Kris Matson, "Visual Factors Affecting Pilots' Judgments of the Position of the Touchdown Point during Emergency Landings," Proceedings 12th ISAP, 2003

16. J. Borse and D. F. McAllister, "Real-time Image-based Rendering for Stereo Views of Vegetation," Proc. SPIE, Vol. 4660, p. 292-299, 2002

17. David F. McAllister, Steven Vivian, Nancy McAllister, "The Impact of Digital Books upon Print Publishing," Proceedings ISTAS '02, June 2002

18. Nancy McAllister, David F. McAllister, Steven Vivian, "Interfacing with writers, online vs print," Proc. NIST Electronic Books 2001, Nov. 2001, Wash. D.C., pp 214-218

19. Meng Wang, Donald L. Bitzer, David McAllister, Robert Rodman, Jamie Taylor, "An Algorithm for V/UV/S Segmentation of Speech," Proceedings of the 2001 International Conference on Speech Processing (ICSP'2001), Seoul, Korea: Acoustic Society of Korea (ASK), pp 541-546, September, 2001

20. Taylor, J., Bitzer, D., Rodman, R., McAllister, D., Wang, M. "Speaker Independence in Lip Synchronization of Vowels," Proceedings of the 5th World Multiconference on Systemics, Cybernetics and Informatics (SCI 2001) and the 7th International Conference on Information Systems Analysis and Synthesis (ISAS 2001). Skokie, IL: International Institute of Informatics and Systemics, 2001

21. Krothapalli, C., McAllister, D., Rodman, R. Bitzer, D., Wang, M., and Taylor, J., "Predictor Surfaces for Lip Synchronization Animation of Voiced Input," Proceedings of the 5th World Multiconference on Systemics, Cybernetics and Informatics (SCI 2001) and the 7th International Conference on Information Systems Analysis and Synthesis (ISAS 2001). Skokie, IL: International Institute of Informatics and Systemics, 2001

22. Taylor, J., Bitzer, D., Rodman, R., and McAllister, D., "Achieving Speaker Independence in Automatic Lip Synchronization," Proceedings of the Applied Voice Input/Output Society. San Jose, CA: AVIOS, pp 163-171, 2001, pp. 83-88

23. David McAllister, Bradley E. Morris, Kris Matson, Jay Tomlinson, "Some problems encountered in the development of a virtual reality system for evaluating human performance during emergency power-off aircraft landings," SPIE, June 2001

24. Rodman, R., McAllister, D., Bitzer, D., and Chappell, D., "A High-Resolution Glottal Pulse Tracker." Proceedings of the International Conference on Spoken Language Processing (ICSLP2000), October, 2000, pp. 63-68

25. David McAllister and Chris DesJardins, "Geometric Image Processing of Stereo Pairs," Proceedings SPIE/IS&T, Stereoscopic Displays and Virtual Reality Systems VIII, Vol. 4297, San Jose, Jan. 2001, pp. 317-327

26. David McAllister, Kris Matson, Rich Hogan, Brad Morris, Donald H. Mershon, Celeste Mayer, Ray Lim, Michael Holmes, Jay Thomlinson, "A Virtual Reality System for Evaluating Human Performance during Emergency Power-Off Aircraft Landings," Proceedings EI '01, Electronic

Imaging: Science and Technology, Photonics West, SPIE/IS&T, San Jose, Jan. 2001, pp. 42-46

27. Celeste M. Mayer, Donald H. Mershon, Raymond Lim, David F. McAllister, Kris Matson, Bradley E. Morris, " Visual Factors Affecting Pilots' Judgments of Trajectory-To-Touchdown During Emergency Landings," 11th Annual Symposium on Aviation Psychology, March 2001, Columbus, Ohio, pp. 25-30

28. Matson, Kris and David F. McAllister, "Geographic Terrain Visualization Using the OpenGL API," Proceedings Information Visualization '99, San Francisco, Oct. 1999, pp. 5-10

29. J. Arthur Davis, David. F. McAllister, "Morphing in Stereo Animation," Proceedings EI '99, Electronic Imaging: Science and Technology, Photonics West, SPIE/IS&T, San Jose, Feb. 1999, pp. 23-30

30. Rodman, R., McAllister, D., Bitzer, D., Fu, H. and Xu, B. "A Pitch Tracker for identifying Voiced Consonants," Proceedings of the 10th International Conference on Signal Processing Applications and Technology (ICSPAT'99). Nov. 1999

31. David McAllister, Robert Rodman, Donald Bitzer, Andrew Freeman, "Automated lip-sync animation as a telecommunications aid for the hearing impaired," Proceedings of the Conference on Interactive Voice Technology for Telecommunications Applications (IVTTA '98) pp. 204-209. Published by the European Speech Community Association (ESCA) and the IEEE., Nov.1998

32. McAllister, D.F., Rodman, R.D., Bitzer, D.L. and Freeman, A.S., "Speaker independence in automated lip-sync for audio-video communication," Computer Networks & ISDN Systems, V 30, No. 21-22, pp. 1975-1980, 1998

33. Kris Matson and David McAllister, "Terrain Surface Visualization Using the OpenGL API," Proceedings IEEE Vis, Oct. '99, San Francisco

34. McAllister, David F., "Image Processing of Stereo Pairs," Proceedings IWSM/IWHIT'99, the First International Workshop on Spatial Media /Sixth International Workshop on Human Interface Technology, University of Aizu, Aizu-Wakamatsu, Japan, Oct. 1999, pp. 83-96

35. Henry Fu, Robert D. Rodman, David F. McAllister, Donald L. Bitzer, Bowei Xu, "Classification of Voiceless Fricatives through Spectral Moments," Proceedings of the 5th International Conference on Information Systems Analysis and Synthesis (ISAS'99). Skokie, IL:International Institute of Informatics and Systemics, pp 307-311, 1999

36. Kalhee Kim, Mladen A. Vouk and David F. McAllister, "Fault-Tolerant Software Voters Based on Fuzzy Equivalence Relations," IEEE Aerospace Conference, Snowmass at Aspen, Colorado, March, 1998

37. Rodman, R., McAllister, D., Bitzer, D. and Freeman, A., "Automated Lip-Sync Animation as a Telecommunications Aid for the Hearing Impaired," Proceedings of the Conference on Interactive Voice Technology for Telecommunications Applications (IVTTA'98). Published by the European Speech Community Association (ESCA) and the IEEE, pp 204-209, 1998.

38. McAllister, D.F., "Stereo Pairs from Linear Morphing," IS&T/SPIE Electronic Imaging '98, San Jose, CA, Feb. 1998, Vol. 3295, pp. 46-52

39. McAllister, David F., Rodman, Rober D., Bizer, Donald L, Freeman, Andrew S. , "Toward Speaker Independence in Automated Lip-sync," Proc. Compugraphics '97, Portugal, Dec., 1997, pp. 1-5

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42. McAllister, David F., Rodman, Robert D., Bitzer, Donald L. and Freeman, Andrew S., "Lip Synchronization for Animation," Computer Graphics, SIGGRAPH 97 Visual Proceedings, Los Angeles, CA, August, 1997
43. L. Harrison, D. McAllister, M. Dulberg, "Stereo computer graphics for virtual reality," ACM SIGGRAPH '97
44. David F. McAllister, Robert Rodman, Donald Bitzer, Andrew Freeman, "Lip Synchronization of Speech," Proceedings Audio-Visual Speech Processing '97, Rhodes, Greece, pp. 133-136
45. McAllister, Nancy C. and D. F. McAllister, "Providing Education Electronically to Nontraditional Sites: New Delivery to a New Audience," Proc. SIGDOC '96, Research Triangle Park, NC, Oct. 1996, pp. 187-194
46. K. Kim, M. Vouk, D. McAllister, "An empirical evaluation of maximum likelihood voting in High Inter-Version failure correlation conditions," Software Reliability Engineering, Oct. '96, pp. 330-339
47. G.W. Steward, W.J. Stewart, D. F. McAllister, "A two-stage iteration for solving nearly uncoupled Markov Chains," Recent Advances in Iterative Methods, Springer, pp. 201-216, Feb. 1996
48. Using virtual reality as a learning aid for autistic children." Proceedings of the Autisme France 3rd International Conference on Computers and Autism, Nice, France, pp. 119-132. (1995) (with Strickland, D., Marcus, L., Hogan, K., Mesibov, G.)
49. "Creating virtual worlds to help children with special needs." California State University, Proceedings Northridge Technology and Persons with Disabilities Conference, Los Angeles. (with Strickland, D., Marcus, L., Hogan, K., Mesibov, G.), March 19-23, 1996
50. "Publishing Online: A Commercial (Ad) Venture", ACM SIGDOC '95, Savannah, GA, June, 1995, pp. 20-25 (with Nancy A. Cooke)
51. Yawei Ma, Ren Lew, D.F. McAllister, "Tracing Tangential Surface Intersections," ACM Solid Modeling '95, Salt Lake City, Utah, May, 1995, pp. 255-262
52. D.F. McAllister and Dafan Pang, "3D Textures Using Stereo Kaleidoscopes," SPIE Proc. Stereoscopic Displays and Virtual Reality Systems II, Vol. 2409, pp. 67-86, Feb., 1995
53. Strickland, D., Patel, A., Stovall, C., Palmer, J., McAllister, D., "Self tracking of Human Motion for Virtual Reality Systems," in S. Fisher, J. O. Merritt, and M. T. Bolas, (Eds.) SPIE Proceedings on Stereoscopic Displays and Virtual Reality Systems, Bellington, WA: SPIE Press, 1994
54. Strickland, D., Marcus, L., Hogan, K., Mesibov, G., McAllister, D., "Using Virtual Reality as a

Learning Aid for Autistic Children", Proceedings from 3rd International Conference on Computers and Autism, Nice, FR., Jan., 1995

55. "Digital Correction of Keystoning Caused by Image Translation," Proc. SPIE , Vol. 2177, pp. 97-107, February, 1994

56. "Self tracking of human motion for virtual reality systems," SPIE/IS&T '94, International Symposium on Electronic Imaging, Proceedings Stereoscopic Displays and Applications V, Vol. 2177, February, 1994 (with Dorothy Strickland, Avni Patel, Charles Stovall and Jay Palmer)

57. "Interactive Design and Manipulation of Quadric Surfaces in Stereo Graphics," Proc. IS&T/SPIE '93 International Symposium on Electronic Imaging, Stereoscopic Displays and Applications IV, Vol. 1915, February 1993 (with Jeff Taylor)

58. Jay Wright, David F. McAllister, "Interactive Design of Rational Bezier Tensor Product Surfaces in Stereo," Proc. IS&T/SPIE '93 International Symposium on Electronic Imaging, Proceedings Stereoscopic Displays and Applications IV, Feb. 1993, Vol. 1915

59. M.A. Vouk, A. Paradkar, David F. McAllister, "Modeling Execution Time of Multistage N-Version Fault-Tolerant Software," COMPSAC '90, pp. 505-511, 1990 (also appears in IEEE Fault-Tolerant Software Systems: Techniques and Applications, H. Pham, Ed., IEEE Computer Society Press, 55-61, 1992

60. David McAllister, "3D Displays," Byte, Vol . 17, No. 5, May 1992, pp. 183 – 188

61. "On Minimizing Absolute Parallax in Stereo Graphics," Proc. Stereoscopic Displays and Applications III, SPIE/IS&T Electronic Imaging, Feb. 1992, pp. 20-30

62. "Problems with Lossy Compression of Stereo Pairs," Proc. Stereoscopic Displays and Applications III, SPIE/IS&T Electronic Imaging, Feb. 1992, pp. 39-50 (with L. Harrison)

63. "Combining Motion Blur and Stereo," Proc. Steroscopic Displays and Applications III, SPIE/IS&T Electronic Imaging, Feb. 1992, pp. 71-83 (with M. Patel)

64. "Rendering of Stereo Images of Implicit Surfaces," SPIE Proceedings Stereoscopic Displays and Applications II, Volume 1457, 1991, pp. 37-53 (with Ravinder Devarajan)

65. Ravinder Devarajan, David Franklin McAllister, "Stereoscopic ray-tracing of implicitly defined surfaces," Proc. SPIE, VOL. 1457, Stereoscopic Displays and Applications II, 37, August, 1991

66. Donald Carver, David McAllister, "Development of a stereoscopic three-dimensional drawing application," Proceedings of SPIE - The International Society for Optical Engineering, August, 1991, pp. 54-65*

67. "Human Interface Design for Stereo CAD Systems," SPIE Proceedings Stereoscopic Displays and Applications II, Volume 1457, 1991, pp. 54-65 (with Don Carver)

68. "Color Quantization Aspects in Stereopsis," SPIE Proceedings Stereoscopic Displays and Applications II, Volume 1457, 1991, pp. 233-241 (with Preshant D. Hebbar)

69. "A Comparison of Stereoscopic Cursors for the Interactive Manipulation of B-Splines," SPIE Proceedings Stereoscopic Displays and Applications II, Volume 1457, 1991, pp. 18-26 (with Paul T. Barham)

70. David McAllister, Keith Scott, "Cost Modeling of fault-tolerant software," Information and Software Technology, Vol. 33, No.8, Nov. 1991, pp. 594-603

71. Paul T. Barham, Louis L. Harrison and David F. McAllister, "Some variations on VISIDEP using computer graphics," *Optical Engineering*, Dec. 1990, Vol. 29 No. 12, pp. 1504-1506
72. "On Some Safety Issues of Software Fault-Tolerance Schemes," *CBMS '90*, (with M.A. Vouk and A.M. Athvale) 1990
73. M.A. Vouk, A. Caglayan, D.E. Eckhardt, J. Kelly, J. Knight. D. F. McAllister, L. Walker, "Anaysis of Faults Detected in a Large-Scale Multi-Version Software Development Experiment," *Proceedings Digital Avionics Systems Conference*, Oct. 1990, pp. 378-375
74. Shaun Love, David F. McAllister, "Computer Generated Lenticular Stereograms," *SPIE OE Lase '89*, 1989
75. Edward Davis, D. F. McAllister, Varun Nagaraj, "Parallel Algorithms for Interactive Manipulation of Digital Terrain Models," *Second Symposium on the Frontiers of Massively Parallel Computation*, April 15, 1988
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78. John P. J. Kelley, David E. Eckhardt, Jr., Mladen A. Vouk, David F. McAllister, Alper Caglayan, "A Large Scale Second Generation Experiment in Multi-Version Software: Description and Early Results," *Proc. FTCS 18*, pp 9-14, June, 1988
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