

## CURRICULUM VITAE

Don Hong

Mailing Address:

328 Whitworth Way, Nashville, Tennessee 37205

E-mail: [dhong@mtsu.edu](mailto:dhong@mtsu.edu) [www.mtsu.edu/~dhong](http://www.mtsu.edu/~dhong)

Telephone: (615)904-8339(office), (615)898-5422(fax)

### EDUCATION

Ph.D., Texas A&M University, 1993.

M. S., Zhejiang University, Hangzhou, China, 1987.

B. S., Zhejiang Normal University, NingBo, China, 1982.

### WORKING EXPERIENCE

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|-------------------|--|
| 08/2005 –         | Professor, Department of Mathematical Sciences<br>Middle Tennessee State University (MTSU), Murfreesboro, TN.          |
| 05/2003 –         | Visiting Professor, Department of Mathematics, VU, Nashville, TN   |
| 08/2003 – 07/2005 | Professor, Department of Mathematics and Statistics<br>East Tennessee State University (ETSU), Johnson City, TN.       |
| 05/2003 – 08/2005 | Visiting Professor, Biostatistics, VU, Nashville, TN.  |
| 06/2003 – 08/2003 | Visiting Research Professor, Department of Biostatistics<br>College of Medicine, Vanderbilt University, Nashville, TN. |
| 09/2001 – 06/2002 | Visiting Associate Professor, Mathematics, VU, Nashville, TN.  |
| 08/1999 – 07/2003 | Associate Professor, Department of Math, ETSU, Johnson City, TN.   |
| 09/1996 – 07/1999 | Assistant Professor, Mathematics, ETSU, Johnson City, TN.  |
| 09/1994 – 08/1996 | Instructor, Department of Mathematics, University of Texas at Austin, Texas.   |

### RESEARCH INTERESTS

Actuarial and Financial Mathematics, Approximation Theory and Computational Mathematics, Splines and Wavelets with Applications, Medical Data Analysis and Bioinformatics, Statistical Methods and Computing with Applications.

### AWARDS AND HONORS

- Distinguished Faculty Research Award, Middle Tennessee State University, 2009.
- Advancement Award in Science and Technology, Guangxi, China, 2004 (with Huanwen Liu).
- Faculty Research Award, East Tennessee State University, College of Arts and Sciences, 2001.

### EDITORIAL AND REFEREE WORK

- **Associate Editor**, *Journal of Applied Functional Analysis*.
- *Chinese Association for Artificial Intelligence (CAAI) Transactions on Intelligent Systems*.
- **Editorial Board**, *The Open Proteomics Journal*, ISSN: 1875-0397  
*The International Journal of Mathematics and Computer Science*  
*Recent Development of Wavelet Theory and Applications*, March 2008 - 2011.
- **Guest Editor**, *Journal of Computational and Applied Mathematics*  
*Journal of Computational Analysis and Applications*  
*Journal of Concrete and Applicable Mathematics*



- Research Enhancement Program Award, Middle Tennessee State University, 2006-2007.
- ETSU Grants Received: Presidential Grant-in-Aid Grant, East Tennessee State University, 2001; International Programs Travel Grant, 1999 & 1997; Research Development Grant, 1999 & 1997; Instructional Development Grant: Actuarial Studies Program Development, 1999 & 1997.

## **SOME MAJOR SERVICE ACTIVITIES**

### **(1) Committee Member Service**

(i) **MTSU:** Council member of Mathematical Science (2009), Convener of Actuarial Science Program (2009), Chair Search Committee member (2009), Director of Actuarial Science Concentration in MSPS program (2008-present); ACSI Faculty Search Committee (2008-09), Strategic Planning Committee (2007-09), Chair of Actuarial Sciences Curriculum committee (2006-2009); Curriculum committees (2005-2006) of Actuarial Sciences, Statistics, and Graduate Policy; member of Graduate Program Committee (2006-2007) at the Department of Mathematical Sciences; BAS Academic Awards Committee (2006-07), Integrative Life Sciences and Computational Sciences Ph.D. faculty committee (2005-present) at the College of Basic & Applied Sciences; member of the Public Service Committee (2008-09), Instructional Technology Committee (2008-09), Career Achievement Award Committee (2006-2008), and the International Programs and Services (2006-2008) at Middle Tennessee State University.

(ii) **Vanderbilt University:** Supervisor of the mass spectrometry cancer data processing weekly group discussion at Biostatistics Shared Resource of Vanderbilt Ingram Cancer Center, 9/2004–7/2005.

(iii) **ETSU:** Member of Important Business Committee (2003-2004), Strategic Planning Committee (2000-01), Graduate Admission Committee (2000-01), “Vision” Committee (1999-00), Curriculum Committee (1999-00), Work Load Committee (1999-00), and Search Committee (1999 and 2000) at the Department of Mathematics; Member of Education Affairs Committee (1998-2000), and Faculty Council (2002-2004) at the College of Arts and Science, East Tennessee State University.

### **(2) Faculty advisor**

(a) **MTSU** Actuarial Math Students Association (2005 – present).

(b) **ETSU** Association of Actuarial Students, and Association of Chinese Students and Scholars.

(3) **Director** of the Actuarial Study Program (1997–2005), Department of Mathematics, ETSU.

### **(4) Host of visiting scholars**

(i) Dr. Aidi Wu, professor of mathematics, University of Petroleum, China, Shandong, China from September 1998 – March 1999.

(ii) Professor Lutai Guan, Associate Dean of the College of Mathematics and Scientific Computing, Zhongshan University, Guanzhou, China from October 1999 – March 2000.

(iii) Professor Wenjun Huang, Department of Computer Sciences, Guangxi University of Nationalities, Nanning, Guangxi, China, 03/2005-02/2006.

## **SOCIETY MEMBERSHIPS**

The International Biometric Society (ENAR)

American Mathematical Society

Casualty Actuaries Society Academic Correspondent

## **PROFESSIONAL MEETING ORGANIZING**

- Special Session on Splines and Wavelets with Applications, 2007 Fall Southeastern Meeting, November 3-4, 2007, MTSU, Murfreesboro, Tennessee. (Co-Organizer: Qingtang Jiang, University of Missouri-St. Louis).
- NSF Workshop on Quantitative Omics Data Analysis, November 1-2, 2007, MTSU, Murfreesboro, Tennessee.
- SIAM Minisymposium on Math and Statistical Models for Cancer Study, SIAM Conference on the Life Sciences, July 31-August 4, 2006, Raleigh, North Carolina (Co- Organizer: Curtis Church, MTSU).
- NSA Workshop on Mathematical Tools and Statistical Techniques for Quantitative Medical Data Analysis, October 13-14, 2005, ETSU, Johnson City, Tennessee.
- American Mathematical Society 2005 Fall Southeast Section Meeting, October 15-16, 2005 Johnson City, TN. (Co-Organizers: Robert Gardner and Anant Godbole, ETSU).
- American Mathematical Society Special Session on “Mathematical Applications in Survival Analysis and Biostatistics”, East Tennessee State University Johnson City, TN, October 15–16, 2005. (Co-Organizer: Tiejian Wu, ETSU).
- Special session on Wavelet and Spline Applications in Biostatistics and Actuarial Sciences, International Conference on Interactions between Wavelets and Splines, Athens, GA, May 16-19, 2005.
- American Mathematical Society Special Session on “Wavelets and Approximation Theory”, University of Texas at Austin, TX, October 8–10, 1999. (Co-Organizer: Mike Prophet, University of Northern Iowa).
- American Mathematical Society Special Session on “Numerical Analysis and Approximation Theory”, University of Tennessee at Chattanooga, TN, October 5-6, 2001. (Co-Organizer: Tianxiao He, Illinois Wesleyan University).

## Students Advising

### A. Chair of MS Thesis Committee and/or Major Advisor of Graduates

1. Adam Niblett, December 2008, *First job*: Instructor of Northeast Alabama Community College, Alabama.
2. Linda Chang, May 2008, *First job*: GTA of the University of Waterloo, Canada.
3. Kazem Karimi, December 2007, *First job*: Actuary of Blue Cross & Blue Shield of Tennessee, Chattanooga, TN.
4. Xingchen Yuan, Thesis Title: *Actuarial survival models of lung cancer patients*, May 2005. *First job*: Research Associate, Fermilab, Chicago, IL.
5. Shuo Chen, Thesis Title: *MALDI-TOF MS data processing using splines, wavelets, and clustering techniques*, December 2004. *First job*: Biostatistician, Ingram Cancer Center, Vanderbilt University, Nashville, TN.
6. Yong Chen, Thesis Title: *Logspline density estimation and applications to survival data from cancer patients*, May 2004. *First job*: Graduate Assistant (Ph.D. student), Case Western Reserve University, Cleveland, OH.
7. Xiaoyu Mu, Thesis Title: *Ruin Probabilities with dependent forces of interest*, August 2003, *First job*: Graduate Assistant (Ph.D. student), University of Tennessee, Knoxville, TN.
8. Rusty Mawk, Thesis title: *Splines in Statistics*, (co-chaired with Robert Price), July 2001. *First job*: Actuary, Merastar Insurance Company, Chattanooga, TN.
9. Renee Gaunt, Thesis Title: *Airline Revenue Optimization: A Multiple Linear Regression Model*, December 2000. *First job*: Actuary, Social Security Administration, Baltimore, MD.

10. Jiansheng Cao, Thesis Title: *Minimum support of prewavelets over type-2 triangulations*, August 2002. *First job*: Actuarial Analyst, Lorraine Dorsa & Associates, Jacksonville Beach, FL.
11. Qingbo Xue, Thesis Title: *Piecewise linear prewavelets over a regular triangulation*, (co-chaired with James Boland), August 2002. *First job*: Graduate Assistant (Ph.D. student), University of Central Florida, Orlando, FL. *Current Position*: Actuarial Analyst, Lorraine Dorsa & Associates, Jacksonville Beach, FL.
12. Andrew Sell, Thesis title: *On a transportation problems*, (co-chaired with James Boland), December 2000. *First Job*: Actuary, Merastar Insurance Company, Chattanooga, TN.
13. Lesley Baker, Thesis title: *On Random Rates of Interest*, August 2001. *First job*: Actuary, Social Security Administration, Baltimore, MD
14. Panrong Xiao, Thesis Title: *Image compression using bi-orthogonal spline wavelets*, (co-chaired with Martin Barrett at Computer Sciences), August 2001. *First job*: Actuarial Analyst/DB Administrator, Lorraine Dorsa & Associates, Jacksonville Beach, FL.
15. Hao Gu, Thesis Title: *MinImage: a wavelet compressor for still images*, (co-supervised with Martin Barrett at Computer Sciences), May 2000. *First job*: Software Engineer, Firstlogic Inc., Raleigh, NC.
16. Yuchun “Anna” Mu, Thesis Title: *On construction of wavelets over triangulations*, August 1999. *First job*: Actuary, The St Paul Companies, Inc., St. Paul, MN. *Current Position*: Actuary, Nationwide Insurance Company, Columbus, OH.
17. Bradley Dyer, Thesis Title: *Optimal triangulation algorithm for bivariate splines and MatLab implementation*, May 1999. *First job*: Instructor, Department of Math and Computer Sciences, Hazard Community College, Hazard, KY.

## **B. Current Advising Graduate Students**

Qi Lu, Rong Lu, Ulyana Pugina, Yuan Shi, Fengqing Zhang

## **C. Undergraduate Students’ Advising**

### • Research Projects:

1. William C. Phelps, Survival Model and Analysis on Lung Cancer Patients, poster presentation at the 2007 Scholars Week, Performance and Multimedia Exposition, MTSU, 2006.
2. Dusty Gray, The Creditable Coverage Actuarial Value Test, NSF STEP-MT summer research, presented at the 2008 End of Summer Research Poster Session, July 25, 2008.
3. David Craig, Statistical Analysis Methods for Asthma Study, MTSU, 2009-10.

### • Current Advising Undergraduate Students

Caroline S. Abbott, James Branch, Charles W. Cox, Matthew C. Doss, Jared Hart, Cassandra Henry, Richard Husband, John C. Lovell, Armin Orucevic, Katherine V. Read, Daniel Rose, Jessica L. Sutton, Thai M. Tan, Teresa R. Walls, Kari Welborn, Li Yand, Xiufeng Yin.

## RECENT INVITED TALKS AND COLLOQUIUM TALKS

1. *Series Lectures at the School of Automation*, Beihang University, Beijing, China from June 19-July 6, 2009.
2. Colloquium presentation on *Some Data Analysis Methods and Applications* at the College of Mathematical Science, Ocean University of China on June 26, 2009.
3. Colloquium presentation on *Multiwavelets, Wavelets over Triangulations, and Applications* at the Department of Mathematics, Beijing Normal University on June 30, 2009.
4. Colloquium presentation on *Wavelets and Applications* at the School of Mathematical Science, North China University of Technology on July 3, 2009.
5. Colloquium presentation on *Recent Development of Proteomics and its Data Processing* at the School of Mathematical Science, Ningbo University, on July 10, 2009.
6. *Elastic-Net Model for Imaging Mass Spectrometry Data Processing*, Mass Spectrometry Research Center, Vanderbilt University, Nashville, Tennessee, May 7, 2009.
7. *Recent progress on large-scale proteomic data processing and feature selection*, Colloquium talk at the department of mathematics, University of Central Florida, Orlando, FL, October 16, 2008.
8. *Mathematical Applications for Quantitative Life Science*, Colloquium presentation at the Department of Mathematics, University of Southern Mississippi, Hattiesburg, MS, on April 21, 2008.
9. *Math Tools and Statistical Techniques for Quantitative Proteomics Data Analysis*, Computational Biology and Bioinformatics (CBB), Northwestern University, Evanston, IL, February 8, 2008.
10. *On Mass Spectrometry Based Proteomic Data Processing Using Multiscale Tools*, Colloquium Talk at the Department of Mathematics, West Virginia University, Morgantown, West Virginia 26506, November 15, 2007.
11. *Applications of Multiscale Tools in Cancer Study*, Trends in Applied Harmonic Analysis, September 23 – 28, 2007, Banff International Research Station, Banff, Canada.
12. *Applications of Wavelets and Splines to Biological Problems*, Presentation at Oak Ridge National Laboratory, Oak Ridge, TN, August 15, 2007.
13. *Tumor and Stromal TGF $\beta$  signaling in prostate cancer*, Seminar of Biomath Project for VUTMEN, Cancer Biology, Vanderbilt University, Nashville, TN, May 3, 2007.
14. *Computer Graphics for Dynamic Molecules*, SIAM Conference on the Life Sciences, July 31-August 4, 2006, Raleigh, North Carolina.
15. *Multiscale Analysis and Proteomic Data Processing*, First International Conference on Computational Systems Biology, FuDan University, Shanghai, China, July 20 – 23, 2006.
16. *Introduction to Wavelets and Multiscaling Analysis*, colloquium talk at the College of Sciences, Ningbo University, Ningbo, Zhejiang, China, July 6, 2006.
17. *Introduction to Wavelets and Applications in Data Analysis*, colloquium talk at the Department of Mathematical Sciences, Guangxi University for Nationalities, Nanning, Guangxi, China, June 30, 2006.

18. *Recent Progress on Multivariate Splines and Applications*, colloquium talk at the Department of Mathematical Sciences, Guangxi University for Nationalities, Nanning, Guangxi, China, July 3, 2006.
19. *Wavelets and Applications in Proteomic Data Analysis*, colloquium talk at the Department of Computer Informatical Science and Mathematics, Guilin University of Technology, Guilin, Guangxi, China, June 27, 2006.
20. *Math Education and Career Opportunities in America Universities*, colloquium talk at Guilin University of Technology, Guilin, Guangxi, China, June 29, 2006.
21. *Wavelet-Based Algorithm for MALDI-TOF MS Data Processing*, Symposium of Computations in Bioinformatics and Bioscience, June 22-16, 2006, Hangzhou, China.
22. *Multiscaling Techniques and PCA/ICA/EMD for Proteomic Data Processing and Biomarkers Discovery*, Seminar talk at the Center of Artificial Intelligence and Applications, Beihang University, Beijing, China, June 20, 2006.
23. *Prewavelet constructions over triangulations*, Invited 45-minute talk at The International Conference on Applicable Harmonic Analysis: Approximation and Computation, June 17–21, 2006, Beijing, China.
24. *Proteomic Data Analysis Using Wavelets and Splines*, Seminar talk at the Department of Mathematics, Central Florida University, Orlando, FL, March 28, 2006.
25. *A comprehensive MALDI-TOF MS data preprocessing method using feedback concept*, 2006 ENAR Spring Meetings, Tampa, FL, March 26-29, 2006.
26. *Wavelet Applications in Mass Spectrometry Data Analysis for Cancer Research*, Biomath/Biostatistics Seminar, Middle Tennessee State University, Murfreesboro, TN, February 14, 2006.
27. *Recent development on binning methods for High-throughput Mass Spectrometry data*, poster presentation at 53rd American Society of Mass Spectrometry (ASMS) conference on mass spectrometry, San Antonio, TX, June 5-9, 2005.
28. *Survival model and estimation for lung cancer patients*, International Conference on the Interactions between Wavelets and Splines, Athens, Georgia, May 16–19, 2005.
29. *On actuarial models and survival analysis for cancer patients*, seminar talk for Vanderbilt Math Club, Vanderbilt University, Nashville, Tennessee, April 6, 2005.
30. *Recent Development of Mass Spectrometry Data Processing Using Mathematical Tools and Statistical Techniques*, VICC and UABCC Spring 2005 Inter-SPORE Biostatistics/Bioinformatics Workshop (Vanderbilt Ingram Cancer Center and University of Alabama at Birmingham Cancer Center), Nashville, TN, April 1, 2005.
31. *A software package on MALDI-TOF MS data preprocessing and statistical analysis*, Seminar talk, Mass Spectrometry Research Center, Vanderbilt University, March 31, 2005.
32. *Recent progress on mass spectrometry data processing*, 2005 Spring Meeting of the Eastern North American Region (ENAR) of the International Biometric Society, Austin, Texas, March 20-13, 2005.

33. *MALDI TOF MS Data Processing Using Wavelets, Splines, and Statistical Techniques*, AMS Sectional Meeting, Western Kentucky University, Bowling Green, KY, March 18-19, 2005.
34. *Actuarial mathematics and survival analysis*, colloquium talk, Department of Mathematical Sciences, Middle Tennessee State University, Murfreesboro, TN, February 14, 2005.
35. *Recent Development of Computational Research in Quantitative Biomedical Science, A Software Package for MS MALDI-TOF Data Processing*, EPSCoR Minisymposium, Murfreesboro, TN, 19-20 January, 2005.
36. *On Mass Spectrometry Data Preprocessing in Cancer Study*, Biomath Study Group Seminar, Vanderbilt University, Nashville, TN, January 26, 2005.
37. *Mass Spectrometry Data Processing in Cancer Study Using Wavelets and Splines*, EPSCoR Minisymposium: Computational Applications and Cyber-infrastructure Symposium, Murfreesboro, TN, January 19-20, 2005.
38. *Mass Spectrometry Data Processing Using Mathematical Tools and Statistical Techniques*, Biostatistics Seminar, Vanderbilt University, Nashville, TN, December 15, 2004.
39. *Cancer data analysis using wavelet methods*, 2004 International Conference on Statistics, Mathematics, and Related Fields, Honolulu, Hawaii, June 9-12, 2004.
40. *Ruin Probability under Dependent Force of Interest*, Applied Actuarial Research Conference, University of Central Florida, Orlando, FL, March 6-9, 2004.
41. *On Graduate Teaching and Research*, colloquium talk, Department of Mathematics, Tennessee State University, Nashville, TN, July 9, 2003.
42. *Introduction to Wavelets and Applications*, Seminar talk at the Department of Biostatistics, Medical School, Vanderbilt University, June 5, 2003.
43. *Splines and Wavelets over Triangulations*, Colloquium talk at Western Kentucky University, Bowling Green, KY on March 20, 2003.
44. *On Splines, Wavelets, and Applications to Mathematical Finance*, Colloquium talk at University of St. Thomas, St. Paul, MN on March 5, 2002.
45. *Seminar talk at the Approximation Theory/Wavelets Seminar*, Department of Mathematics, Vanderbilt University, Nashville, TN, October 31, 2001.
46. *Colloquium talk at the Department of Mathematics*, MTSU, Murfreesboro, TN, March 9, 2001.
47. *Colloquium talk at the Department of Mathematics*, Vanderbilt University, Nashville, TN, Feb. 21, 2001.
48. *Colloquium talk at the Department of Mathematics*, University of North Carolina, Charlotte, NC, Jan. 29, 2001.

#### **SOFTWARE DEVELOPMENT**

1. *Project Spectrum Binning Software for MALDI-TOF Data Alignment*, Biostatistics Shared Resource, Vanderbilt Ingram Cancer Center, Nashville, Tennessee, version 1.0, February 2005.
2. *Wavelet-based software for MALDI-TOF Data Preprocessing*, Biostatistics Shared Resource, Vanderbilt Ingram Cancer Center, Nashville, Tennessee, MatLab version, April 2005.

## LIST OF PUBLICATIONS

### • Books/Proceedings

1. Don Hong and Yu Shyr, *Quantitative Medical Data Analysis Using Math Tools and Statistical Techniques*, World Scientific Publications, LLC., New Jersey, 2007, (364 pages), ISBN 978-981-270-461-0.
2. Don Hong, Jianzhong Wang, and Robert Gardner, *Real Analysis with an introduction to wavelets and applications*, Graduate Textbook, Academic Press/Elsevier, 2005. (369 pages), ISBN: 0-12-354861-6.
3. Don Hong and Yu Shyr, *Wavelets and Applications*, Special Issue of *Journal of Concrete and Applicable Mathematics*, **4** (2006).
4. Don Hong and Michael Prophet, *Proceedings of Wavelets and Approximation Theory*, Special Issue of *Journal of Computational Analysis and Applications*, 5:1 (2003).
5. Don Hong and Tianxiao He, *Proceedings of Approximation Theory and Numerical Analysis*, A Special Issue of *Journal of Computational and Applied Mathematics*, 155 (2003).

### • Published/Publishing Articles (Refereed) and recent manuscripts

6. *Weighted Elastic Net Model for Mass Spectrometry Imaging Processing*, (with Zoe Zhang), submitted manuscript 2009.
7. *Elastic-Net Model for Imaging Mass Spectrometry Data Processing*, (with Zoe Zhang, Shannon Cornett, and Sara Frappier), submitted manuscript 2009.
8. *Wavelet Applications in Proteomics*, (with Shiyin Qin and Zoe Zhang), submitted manuscript 2009.
9. *Spline-based computing and visualization of molecular surfaces* (with W.J. Huang and H.W. Liu), manuscript, 2009.
10. *A Novel Comprehensive Wave-form MS Data Processing Method*, (with Shuo Chen, Ming Li, Dean Billheimer, Huiming Li, Baogang J. Xu, and Yu Shyr), *Bioinformatics*, **25** (2009), 808 C 814.
11. *Mathematical Framework and Wavelets Applications in Proteomics for Cancer Study*, (with Yu Shyr), In: *Handbook of Cancer Models with Applications*, (Wai-Yuan Tan and Leonid Hanin Eds., World Scientific, New Jersey, 2008, pp. 471-499.
12. *Wavelet-Based Procedures for Proteomic MS Data Processing*, (with Shuo Chen and Yu Shyr), *Computational Statistics and Data Analysis*, **52** (2007), 211-220.
13. *Parameterized Piecewise Linear Prewavelets over Type-2 Triangulations*, (with Jiansheng Cao), *International Journal of Applicable Analysis*, **86** (2007) 83-98.
14. *Wavelets and Projecting Spectrum Binning for Proteomic Data Processing*, (with Ming Li, Huiming Li, and Yu Shyr), In *Quantitative Medical Data Analysis Using Math Tools and Statistical Techniques*, pp. 159-178, World Scientific Publications, LLC., New Jersey, 2007.
15. *Survival Model and Estimation for Lung Cancer Patients*, (with Xingchen Yuan and Yu Shyr), In *Quantitative Medical Data Analysis Using Math Tools and Statistical Techniques*, pp. 201-222, World Scientific Publications, LLC., New Jersey, 2007.

16. On Airline Revenue Optimization Problems, (with Renee Ferguson), *J. Concrete and Applicable Math*, **5** (2007), 153-167.
17. Ruin probabilities with dependent force of interest, (with Xiaoyu Mu), submitted to *Journal of Concrete and Applicable Mathematics*.
18. Construction of Small Support Piecewise Linear Prewavelets over Type-2 Triangulations, (with Jiansheng Cao and Wenjun Huang), In *Splines and Wavelets: Athens 2005* (G.R. Chen and M.J. Lai Eds.), pp. 105-122, Nashboro Press, Brentwood, 2006.
19. Wavelet Applications in Cancer Study, (with Yu Shyr), *J. of Concrete and Applicable Mathematics*, **4** (2006), 505-521.
20. Construction of Piecewise Linear Prewavelets over Regular Triangulations, (with Qingbo Xue), *J. of Concrete and Applicable Mathematics*, **4** (2006), 451-471.
21. Bivariate  $C^1$  cubic spline space over non-uniform type-2 triangulation and its subspaces with boundary conditions, (with H.W. Liu and D.Q. Cao), *Computer and Mathematics with Applications*, **49** (2005), 1853-1865.
22. Surface Compression Using a Basis of  $C^1$  Cubic Bivariate Spline Spaces, (with Larry L. Schumaker), *Journal of Computing*, **72** (2004), 79-92.
23. On still image compression, (with Hao Gu and Martin Barrett), *J. of Computational Analysis and Applications* **5**(2003), 45-75.
24. An algorithm for optimal triangulations on  $C^1$  quartic spline approximation and MatLab implementation, (with Brad Dyer), *J. of Computational Analysis and Applications*, **5**(2003), 25-43.
25. An explicit representation of a local basis in  $C^1$  cubic spline space over a triangulated quadrangulation, (with Huanwen Liu), *Journal of Computational and Applied Mathematics*, **155** (2003), 187-200.
26. On Piecewise Linear Wavelets and Prewavelets over Triangulations, (with Doug Hardin), *Journal of Computational and Applied Mathematics*, **155** (2003), 91-109.
27. Best approximation for symmetric semi-definite positive solutions of the left and right inverse eigenvalue problems on a subspace, (with Jiansheng Cao), *Journal of Concrete and Applicable Mathematics*, **1:3** (2003) 217-227.
28. Biorthogonal Spline Wavelets and EZW Coding for Image Compression, (with Martin Barrett, and Panrong Xiao), In: "Robotic welding, Intelligence and Automation" (Tzyh-Jong Tarn and Shan-Ben Chen Eds.), *Series Lecture Notes in Control and Information Sciences*, Vol. 299, Springer-Verlag, Heidelberg, 2003, pp.281-303.
29. Bivariate  $C^1$  cubic spline spaces over even stratified triangulations, (with Huan-Wen Liu), *Journal of Computational Analysis and Applications* **4:1** (2002), 19-35. (MR: **2002k**:65020).
30. On Convergence and Smoothness of Orthogonal Multiwavelets of Multiplicity Four, (with Lutai Guan and Aidi Wu), *Journal of Engineering Mathematics*, **18:2** (2001), 1-11.
31. Some new formulations of smoothness conditions and conformality conditions for bivariate splines, (with Huan Wen Liu), *Computers and Mathematics with Applications*, **40** (2000), 117-125. (MR: **2001b**:41007).

32. Optimal-order approximation by mixed three-directional spline elements, (with R.N. Mohapatra), *Computers and Mathematics with Applications*, **40** (2000), 127-135.
33. On construction of minimum supported piecewise linear prewavelets over triangulations, (with Yuchun Anna Mu), In: "Wavelet Analysis and Multiresolution Methods", Lecture Notes for Pure and Applied Mathematics, pp.181-201, Marcel Dekker, Inc., New York, NY, 2000. (MR: **2001d**:42024).
34. Orthogonal multiwavelets of multiplicity four, (with Aidi Wu), *Computers and Mathematics with Applications*, **40** (2000), 1153-1169. (MR: **2001e**:42047).
35. On scattered data representation using multivariate splines, In "Handbook on Analytic-Computational Methods in Applied Mathematics", pp.997-1029, Chapman & Hall/CRC Press, Boca Raton, 2000. (MR: **2001g**:41014).
36. Some smoothness conditions and conformality conditions for bivariate quartic and quintic splines, (with H.-W., Liu), *CALCOLO: A Quarterly on Numerical Analysis and Theory of Computation*, **36** (1999), 43-61. (MR **2001c**: 41010).
37. On optimal order of approximation from bivariate spline spaces, in "Proceedings of the Sixth International Colloquium on Numerical Analysis and Computers with Applications" (D.D.Bainov and A.B. Dishliev Eds.), pp.219-225, VSP, International Science Publishers, Utrecht, The Netherlands, 1998.
38. Optimal triangulations and smoothness conditions for bivariate splines, (with H.-W. Liu and R. Mohapatra), in "Approximation Theory IX, Vol. 2: Computational Aspects" (C.K. Chui and L.L. Schumaker Eds.), pp. 129-136, Vanderbilt University Press, Nashville, TN, 1998.
39. Recent progress on multivariate splines, in "Approximation Theory: In Memory of A.K. Varma" (N.K. Govil etc. Ed.), pp.265-291, Marcel Dekker, Inc., New York, NY, 1998. (MR **99c**: 41022).
40. Swapping edges of arbitrary triangulations to achieve the optimal order of approximation, (with C. K. Chui), *SIAM J. Numer. Anal.* **34** (1997) 1472-1482. (MR **98h**: 41036).
41. Construction of the local  $C^1$  quartic spline elements for optimal order approximation, (with C. K. Chui), *Math. of Computation*, **65** (1996). 85-98. (MR **96d**: 65023).
42. Optimal triangulations using edge swappings, in "Approximation Theory VIII, Vol.1", C. K. Chui and L. L. Schumaker (eds.), pp. 249-256, World Scientific Publishing Co., Inc., 1995.
43. A Bernstein-Bézier based smoothness condition for  $pp$  functions, *Approx. Theory and Applications*, **11**:2 (1995), 67-75.
44. Stability of optimal order approximation by bivariate splines over arbitrary triangulations, (with C. K. Chui and R. Q. Jia), *Trans. of Amer. Math. Soc.*, **347** (1995), 3301-3318. (MR **96d**:41012).
45. Some properties of Bernstein polynomials on a simplex, *J. of Math. Res. and Expos.*, (with S. T. Wu), **14** (1994), 355-366. (MR **95h**: 41057).
46. On the degree of multivariate Bernstein polynomial operators, (with C. K. Chui and S. T. Wu), *J. of Approx. Theory*, **78** (1994), 77-86. (MR **95j**: 41023).
47. Spaces of bivariate spline functions over triangulations, *Approx. Theory and Applications*, **7**:1 1991, 56-75. (MR **92f**:65016).