CURRICULUM VITAE

Don Hong

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EDUCATION

PostDoc Training: Computational Mathematics, University of Texas at Austin, 1994-1996.

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

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

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

WORKING EXPERIENCE

08/2005 –	Professor of Mathematical Sciences
	Middle Tennessee State University (MTSU), Murfreesboro, TN.
08/2010 –	Coordinator of Actuarial Science Concentration, MS for Professional Science Program
	Middle Tennessee State University, Murfreesboro, TN.
05/2003 – current	Visiting/Adjoint Professor, Department of Mathematics
	Vanderbilt University, Nashville, TN.
11/2009, June of 2011, 2012, 2013, 2014	Visiting Professor, Department of Mathematics
	City University of Hong Kong, Hong Kong, China
06/2006 – 08/2008	Visiting Professor, Cancer Biology and VICC Biostat Shared Resource
	Vanderbilt University (VU), Nashville, TN.
08/2003 – 07/2005	Professor, Department of Mathematics and Statistics
	East Tennessee State University (ETSU), Johnson City, TN
05/2003 – 08/2005	Visiting Professor, Biostatistics
	College of Medicine, Vanderbilt University, Nashville, TN
09/2001 – 06/2002	Visiting Associate Professor, Department of Mathematics
	Vanderbilt University, Nashville, TN.
08/1999 – 07/2003	Associate Professor, Mathematics, ETSU, Johnson City, TN
09/1996 – 07/1999	Assistant Professor, Mathematics, ETSU, Johnson City, TN
09/1993 - 08/1994	Lecturer, Department of Mathematics, Texas A&M University, College Station, Texas

RESEARCH INTERESTS

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

AWARDS AND HONORS

- 2013 Overseas High-Caliber Telents of Beijing Municipal, China.
- Distinguished Faculty Research Award, Middle Tennessee State University, 2009.
- Faculty Research Award, College of Arts and Sciences, East Tennessee State University, 2001.

EDITORIAL AND REFEREE WORK

- **Edito-in-Chief**,   *Journal of Heath and Medical Informatics*, 2005-present.
- **Editorial Board**,   Int. J. of Computational Mathematics, 2013 - present.

                       The International Journal of Mathematics and Computer Science, 2008 - present.

                       Journal of Health and Medical Informatics, 2012-present.

                       American Research Journal of Mathematics, 2015-present.

- **International Editorial Member**

                       Chinese Association for Artificial Intelligence (CAAI) Transactions on Intelligent Systems, 2008-present.

- **Guest Editor**,   *Journal of Computational and Applied Mathematics*

                       Journal of Computational Analysis and Applications

                       Journal of Concrete and Applicable Mathematics

- **Referee for professional journals**:

Advances in Computational Mathematics, Applied Mathematics Letters, Approximation Theory and its Applications, Applicable Analysis, Applied and Computational Harmonic Analysis, Applied Numerical Analysis, Arab Gulf Journal of Scientific Research, Bioinformatics, Mathematical Modeling in the Medical Sciences, Cancer Informatics, Constructive Approximation, Computer-Aided Design, IEEE Transactions on Systems, Man, and Cybernetics Part B, Journal of computational mathematics, Journal of Approximation Theory, Journal of Concrete and Applicable Mathematics, Journal of Computational and Applied Analysis, Journal of Computational and Applied Mathematics, International Journal of Mathematics and and Mathematical Sciences, Int. J. of Computers & Mathematics with Applications, Kuwait Journal of Science & Engineering, Linear Algebra and its Applications, Mathematics of Computation (AMS), Mathematical & Computer Modelling, Mathematical Methods in the Applied Sciences, Methodology & Computing in Applied Probability, Numerical Methods for PDE, J. of Computing and Information Science in Engineering, Nonlinear Analysis Series B: Real World Applications, SIAM Journal of Mathematical Analysis, SIAM Journal of Numerical Analysis, Statistics in Medicine, Transactions of American Math Society, J. Mathematical Analysis and Applications, Australian & New Zealand Industrial and Applied Mathematics Journal, Proceedings of 2006 International Conference on Robotic Welding, Intelligence and Automation, Beijing, China.
Reviewer of AMS Mathematical Reviews.

- **Reviewer for Funding Proposals/Programs:**

♡ NIH Panel Reviewer: (1) Bioinformatics and Software Development Program

                                       (2) Challenge Grant Program

♡ Proposal Reviewer of National Science Foundation

♡ Kentucky Science and Engineering Foundation Program, SHSU Research Grant Proposals

♡ Lytmos Reviewer Portal

GRANTS

- Casualty Actuaries of Southeast (CASE) Grant for MTSU Actuarial Science Program Enhancement, 2014. Amount: $1500.00

- 2012 Cycle II Rate Review Project, TN Department of Commerce and Insurance, Health and Human Services (HHS) Grant, MTSU Actuarial Science Program, $440,000.00.

- 2011 Cycle I Rate Review Project, TN Department of Commerce and Insurance, Health and Human Services (HHS) Grant, MTSU Actuarial Science Program, $300,000.00.

- Casualty Actuaries of Southeast (CASE) Grant for MTSU Actuarial Science Program Enhancement, 2012. Amount: $2500.00

- MTSU FRCPC Synergy grant on Mathematical Tools and Statistical Techniques for Hyper-spectral Type Data Analysis, (with Jeff Leblond), 2009-2011.

- Casualty Actuaries of Southeast (CASE) Grant for MTSU Actuarial Science Program, 2007-2009. Awarded Amount: $6,000.00.

- MTSU FRCPC grant on Multiscale Math Tools for Proteomics Data Processing, 2008-2009.

- NSF Mathematical Biology Program, Workshop on Quantitative Proteomics, DMS-0649753, 2007-2008. Awarded Amount: $5,000.00.

- MTSU FRCPC grant on Multivariate Splines and Applications, 2007-2008.

- NSF Grant for 2005–2006, Wavelets and Splines in the study of the MALDI-TOF protein expression data for lung cancer and the survival analysis, DMS-0552377, Awarded Amount: $10,732.00.

• MTSU Research Enhancement Program grant on MALDI mass spectrometry data analysis, 2005-2007.

• NSA Grant for Workshop on Mathematical Tools and Statistical Techniques for Quantitative Medical Data Analysis, October 13-14, 2005, Awarded Amount: $15,125.00.

• NSF Grant for 2004–2005, Wavelets and Splines in the study of the MALDI-TOF protein expression data for lung cancer and the survival analysis, DMS-0408086, Awarded Amount: $99,999.00.

• NSF Grant for 1999–2002, Implementing Reform in an Internet-based Classroom, Awarded Amount: $130,707. (Co-PI with Jeff Knisley and Janice Huang).

SOME MAJOR SERVICE ACTIVITIES

(1) **Committee Member Service**

(i) **MTSU:** Computational science (COMS) Ph.D. program admission committee chair (2010-present), COMS faculty membership committee (2011-present), COMS Student Evaluation Committee (2013-present), Math Graduate Program Committee (2012-present), Academic Appeals Committee (2012-2014), University Award Committee (2012-2013), COMS faculty search committee (2010-2011), Ph.D. faculty member for COMS (2005-present), Chair Council member of Mathematical Science (2009-present), Convener of Actuarial Science Program (2009-present), Math Chair Search Committee member (2009), Coordinator of Actuarial Science Concentration (ACSI) in MSPS program (2008-present); ACSI Faculty Search Committee (2008-09 and 2010-2011), 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).

(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.

(iv) Professor Zhongqing Cheng, China University of Mining and Technology, May 5, 2010 – May 4, 2011.

(v) Professor Zhihui Yang, North China University of Technology, June 1, 2010 – August 29, 2010.

(vi) Professor Xiaomin Zhang, Ningbo University, August. 25, 2010 – December 24, 2010.

(vii) Professor Wei Wang, Ningbo University, August. 25, 2013 – December 24, 2013.

(viii) Professor Jianfeng Li, Ningbo University, August. 25, 2013 – December 24, 2013.

(ix) Professor Huimin Zhao, Tianjin University, March 20, 2015-March 19, 2016.

SOCIETY MEMBERSHIPS

American Mathematical Society

Casualty Actuaries Society Academic Correspondent (ACAD)

PROFESSIONAL MEETING ORGANIZING

• The 38th annual meeting of the SIAM Southeastern Atlantic Section, mini-symposium on Imaging and Image Processing with Applications Orgnizers: Don Hong and Jiancheng Zou (MTSU and NCUT), at the Florida Institute of Technology, Melbourne, Florida, March 29-30, 2014.

• The 37th annual meeting of the SIAM Southeastern Atlantic Section, mini-symposium on Statistical Computing Methods for Imaging Data Processing Orgnizers: Don Hong, John Wallin, and Qiang Wu, at the Oak Ridge National Laboratory and the University of Tennessee-Knoxville, in March 22-24, 2013.

• Minisymposium on Computational Tools and Quantitative Methods for High Dimensional Data Analysis, 2012 SIAM Southeast Atlantic Section Conference, March 24 - 25, 2012, University of Alabama in Huntsville, Huntsville, Alabama, USA. (Co-Organizer: John Wallin, Middle Tennessee State University).

• 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).

Chair of MS/Ph.D. Thesis/Dissertation Committee

1. Jingsai Liang, Project Title: *Compressive Sensing and Applications*, Ph.D. Study in Computational Science, expected graduation date: august 2016.

2. Xin Yang, Project Title: *fMRI Data Analysis*, Ph.D. Study in Computational Science, expected graduation date: August 2016.

3. Lu Xiong, Dissertation Title: *Statistical Computing Schemes for Proteomics Data Processing and Insurance Solvency Modeling*, Ph.D. in Computational Science, graduation date: December 2014. *current job:* Actuary, SIGMA Actuarial Consulting, Brentwood, TN.

4. Ye Ye, Thesis Title: *Extended Tail Conditional Expectation for Exponential Dispersion Family*, MS in Mathematical Sciences, graduation date: August 2014. *current job:* Ph.D. graduate assistant, Department of Economics, MTSU.

5. John D. Ihrie, Project Title: *Web-based data mining tools for cancer research*, MSPS in Biostatisitcs, graduation date: August 2011. *current job:* Fellowship at the FDA through the Oak Ridge Institute for Science and Education (ORISE).

6. Rong Lu, Thesis Title: *A nonparametric phenotypic coding of the univariate family-based association test statistic in late times-to-onset analysis*, MS in Mathematics, graduation date: May 2011. *First job:* Ph.D. Graduate Assistantship, Ohio State University, Columbus, OH.

7. Zoe Zhang, **2011 Conference of Southern Graduate Schools Thesis Award Winner**, Thesis Title: *Multivariate Analysis Methods for IMS Data Biomarker Selection and Classification*, MS in Mathematics, Graduation date: May 2010. *First job:* Ph.D. Graduate Assistantship, Northwestern University, Evanston, IL.

8. Xingchen Yuan, Thesis Title: *Actuarial survival models of lung cancer patients*, May 2005. *First job:* Research Associate, Fermilab, Chicago, IL.

9. 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.

10. 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.

11. 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.

12. Rusty Mawk, Thesis title: *Splines in Statistics*, (co-chaired with Robert Price), July 2001. *First job:* Actuary, Merastar Insurance Company, Chattanooga, TN.

13. Renee Gaunt, Thesis Title: *Airline Revenue Optimization: A Multiple Linear Regression Model*, December 2000. *First job:* Actuary, Social Security Administration, Baltimore, MD.

14. Jiansheng Cao, Thesis Title: *Minimum support of prewavelets over type-2 triangulations*, August 2002. *First job:* Actuarial Analyst, Lorraine Dorsa & Associates, Jacksonville Beach, FL.

15. 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.

16. Andrew Sell, Thesis title: *On a transportation problems*, (co-chaired with James Boland), December 2000. *First Job:* Actuary, Merastar Insurance Company, Chattanooga, TN.

17. Lesley Baker, Thesis title: *On Random Rates of Interest*, August 2001. *First job:* Actuary, Social Security Administration, Baltimore, MD

18. 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.

19. 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.

20. 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.

21. 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.

RECENT INVITED TALKS AND COLLOQUIUM TALKS

1. Invited talk On Big Data Science and Medical Applications, College of Sciences, North China University of China, Beijing, China, June 25, 2015.

2. Invited talk on Big Data Analysis and application in medical imaging and images, College of Sciences, Hangzhou Normal University, Hangzhou, Zhejiang, China, June 20, 2015.

3. Invited talk on High Dimensional Data Analysis with Applications in Medical Imaging and Images at High-Dimensional Data Analysis Workshop held at the Department of Computer Science , Tennessee State University, Nashville, Tennessee, USA. April 16-17, 2015.

4. Invited talk on Statistical Computing Schemes for Hyper-spectral Type Data Processing in Medical Applications, at the International Conference on Learning and Approximation held at Fudan University, Shanghai, China, December 8-12, 2014.

5. Seminar talk on Hyper-spectral Type Data and Statistical Processing Methods with Applications in Medical Imaging and Images, at the College of Sciences, North China University of Technology, Beijing, China, November 17, 2014.

6. Actuarial Science Education in North America, College of Mathematical Sciences, JiNan University, Shandong, China, May 30, 2013.

7. From Approximation Theory to High Dimensional Data Analysis, College of Sciences, North China University of Technology, Beijing, China, May 28, 2013.

8. On Hyper-spectral type Data Analysis and Applications, Invited Presentation at the International Conference on Approximation Theory and Applications, City University of Hong Kong, Hong Kong, May 20-24, 2013.

9. Statistical Approximation Methods for IMS data analysis, Invited Presentation at The 2nd Workshop on Biostatistics and Bioinformatics, Georgia State University, Atlanta, GA, May 10-12, 2013.

10. Markov Random Fields for Imaging Mass Spectrometry Data Analysis and Applications, 2012 Beijing International Workshop on Imaging and Images, Beijing, May 25-27, 2012.

11. Multi-resolution Analysis Method for IMS Data Biomarker Selection and Classification, Computational Tools and Quantitative Methods for High Dimensional Data Analysis, 36th Annual SIAM Southeastern Atlantic Section Conference, Huntsville, AL, March 24 - 25, 2012.

12. Computational Statistical Applications to Imaging Mass Spectrometry Based Proteomic Data Analysis and Biomarkers Discovery, Canada-China-USA Conference on Modern Techniques in Computational Mathematics, University of Alberta, Edmonton, Canada, August 2224, 2011.

13. On IMS data analysis, Department of Mathematics and Statistics, East Tennessee State University, Johnson City, Tennessee, April 20, 2011.

14. Series of Lectures on Multivariate Statistical Tools and Applications, Department of Mathematics and Computer Sciences, University of Missouri at St. Louis, March 7-10, 2011.

15. Software development for IMS data processing, Mass Spectrometry Research Center, Vanderbilt University, Nashville, Tennessee, April 1, 2010.

16. DEPARTMENT OF BIOSTATISTICS AND BIOINFORMATICS SEMINAR Talk, Imaging Mass Spectrometry Based Proteomic Data Analysis and Biomarkers Discovery, Rollins School of Public Health, Emory University, Atlanta, GA, October 28, 2010.

17. Colloquium talk on Imaging Mass Spectrometry Data Processing and Biomarker Discovery, Department of Bioinformatics, the School of Health Science, Peking University, Beijing, China, November 18, 2009.

18. *Series Lectures at the School of Automation*, Beihang University, Beijing, China from June 19-July 6, 2009.

19. Colloquium presentation on *Some Data Analysis Methods and Appliactions* at the College of Mathematical Science, Ocean University of China on June 26, 2009.

20. Colloquium presentation on *Multiwavelets, Wavelets over Triangulations, and Applications* at the Department of Mathematics, Beijing Normal University on June 30, 2009.

21. *Elastic-Net Model for Imaging Mass Spectrometry Data Processing*, Mass Spectrometry Research Center, Vanderbilt University, Nashville, Tennessee, May 7, 2009.

22. *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.

23. *Mathematical Applications for Quantitative Life Science*, Colloquium presentation at the Department of Mathematics, University of Southern Mississippi, Hattiesburg, MS, on April 21, 2008.

24. *Math Tools and Statistical Techniques for Quantitative Proteomics Data Analysis*, Computational Biology and Bioinformatics (CBB), Northwestern University, Evanston, IL, February 8, 2008.

25. *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.

26. *Applications of Multiscale Tools in Cancer Study*, Trends in Applied Harmonic Analysis, September 23 – 28, 2007, Banff International Research Station, Banff, Canada.

27. *Applications of Wavelets and Splines to Biological Problems*, Presentation at Oak Ridge National Laboratory, Oak Ridge, TN, August 15, 2007.

28. *Tumor and Stromal TGFβ signaling in prostate cancer, Seminar of Biomath Project for VUTMEN, Cancer Biology, Vanderbilt University, Nashville, TN, May 3, 2007.*

29. *Computer Graphics for Dynamic Molecules, SIAM Conference on the Life Sciences, July 31-August 4, 2006, Raleigh, North Carolina.*

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

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 Ji-Ping Wang, Computational Biology and Data Mining, Special Issue of International Journal of Mathematics and Computer Science, 5 (2010).*

4. *Don Hong and Yu Shyr, Wavelets and Applications, Special Issue of Journal of Concrete and Applicable Mathematics, 4 (2006).*

5. *Don Hong and Michael Prophet, Proceedings of Wavelets and Approximation Theory, Special Issue of Journal of Computational Analysis and Applications, 5:1 (2003).*

6. *Don Hong and Tianxiao He, Proceedings of Approximation Theory and Numerical Analysis, A Special Issue of Journal of Computational and Applied Mathematics, 155 (2003).*

7. *Hyperspectral Imaging Type Medical Data Processing: Spectral and Spatial Analysis, (with Zhihui Yang and Jiancheng Zou), Journal of Health & Medical Informatics, 2015, 6: e135, doi: 10.4172/2157-7420.1000e135.*

8. *Multi-Resolution Analysis Method for IMS Proteomic Data Biomarker Selection and Classification, (with Lu Xiong), British Journal of Mathematics & Computer Science, 5(1) (2015): 65-81.*

9. *IMSmining: A Tool for Imaging Mass Spectrometry Data Biomarker Selection and Classification, (with J Liang, FZ Zhang, and J Zou), Springer Proceedings in Mathematics & Statistics, Volume 139: Mathematics and Computing, pp.155-162, Springer, New York, 2015.*

10. *Mathematical Tools and Statistical Techniques for Proteomic Data Mining, (with Shiyin Qin and Fengqing Zhang), International Journal of Mathematics and Computer Science, 5 (2010), no. 2, 123-140.*

11. *Triangulation based method for constructing molecular surfaces, (with Wenjun Huang and Huanwen Liu), 2010 2nd International Conference on multimedia and Computational Intelligence (IEEE), Wuhan, China, September 29-30, 2010, pp.423-426.*

12. *Weighted Elastic Net Model for Mass Spectrometry Imaging Processing, (with Zoe Zhang), Math. Model. Nat. Phenom., Vol. 5, No. 3, 2010, pp. 115-133.*

13. *Elastic Net Based Framework for Imaging Mass Spectrometry Data Biomarkers Selection and Classification, Statistics in Medicine, 30 (2010), 753768. DOI: 10.1002/sim.4147.*

14. *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 - 814.*

15. *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.*

16. Wavelet-Based Procedures for Proteomic MS Data Processing, (with Shuo Chen and Yu Shyr), *Computational Statistics and Data Analysis*, **52** *(2007), 211-220.*

17. Parameterized Piecewise Linear Prewavelets over Type-2 Triangulations, (with Jiansheng Cao), *International Journal of Applicable Analysis*, **86** *(2007) 83-98.*

18. 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.

19. 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.

20. On Airline Revenue Optimization Problems, (with Renee Ferguson), *J. Concrete and Applicable Math*, **5** *(2007), 153-167.*

21. 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.

22. Wavelet Applications in Cancer Study, (with Yu Shyr), *J. of Concrete and Applicable Mathematics*, **4** *(2006), 505-521.*

23. Construction of Piecewise Linear Prewavelets over Regular Triangulations, (with Qingbo Xue), *J. of Concrete and Applicable Mathematics*, **4** *(2006), 451-471.*

24. 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.

25. Surface Compression Using a Basis of C^1 Cubic Bivariate Spline Spaces, (with Larry L. Schumaker), *Journal of Computing*, 72 (2004), 79-92.

26. On still image compression, (with Hao Gu and Martin Barrett), *J. of Computational Analysis and Applications* **5***(2003), 45-75.*

27. 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.*

28. 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.

29. On Piecewise Linear Wavelets and Prewavelets over Triangulations, (with Doug Hardin), *Journal of Computational and Applied Mathematics*, 155 (2003), 91-109.

30. 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.

31. 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.

32. 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).*

33. 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.*

34. *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).*

35. *Optimal-order approximation by mixed three-directional spline elements, (with R.N. Mohapatra), Computers and Mathematics with Applications, 40 (2000), 127-135.*

36. *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).*

37. *Orthogonal multiwavelets of multiplicity four, (with Aidi Wu), Computers and Mathematics with Applications, **40** (2000), 1153-1169. (MR: **2001e**:42047).*

38. *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).*

39. *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).*

40. *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.*

41. *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.*

42. *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).*

43. *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).*

44. *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).*

45. *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.*

46. *A Bernstein-Bézier based smoothness condition for pp functions, Approx. Theory and Applications, **11**:2 (1995), 67-75.*

47. *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).*

48. *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).*

49. *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).*

50. *Spaces of bivariate spline functions over triangulations, Approx. Theory and Applications, **7**:1 1991, 56-75. (MR **92f**:65016).*