

# Don Hong

## Department of Mathematical Science

Don Hong earned his Ph.D. in Mathematics from Texas A&M University and has held a postdoctoral position at the University of Texas-Austin. Before joining to MTSU as Professor of Mathematical Science in 2005, Dr. Hong served on the faculty at East Tennessee State University, where he received the 2001 CAS Research Award, as an Assistant, Associate, and Full Professor. He also has held Visiting Professor positions at the Departments of Mathematics and Biostatistics of Vanderbilt University.

Dr. Hong's research areas include *Approximation Theory and Computational Science, Wavelets and Medical Data Processing, and Bioinformatics*. He has solved a conjecture given by Carl de Boor, a member of National Academies of Science and Engineering, on the approximation power of bivariate spline spaces  $S(\Delta)$  over arbitrary triangulations and established himself as an international scholar in the area of approximation theory. Larry Schumaker, a Stevenson Professor of Vanderbilt University stated that Hong produced "breakthrough research in a difficult area." On the dimension formula of spline spaces  $S(\Delta)$ , a recent citation says "So far, the best result was given by Hong" in *Constructive Approximation*, a well-known journal in approximation theory. Dr. Hong has published two books and more than 40 research articles in leading journals such as *Transactions of the American Mathematical Society, Mathematics of*

*Computation, SIAM Journal of Numerical Analysis, Journal of Computing, and Journal of Computational Mathematics and Applications.* His graduate textbook entitled *Real Analysis with an Introduction to Wavelets and Applications* is under a contract for publishing its second edition. He has been invited to speak at national and international conferences, as well as in colloquia at top ranked schools such as Northwestern Universities, Vanderbilt University, and University of Wisconsin-Madison. He has been a guest editor of three mathematical journals and is serving on the editorial boards of *Journal of Applied Functional Analysis, International Journal of Mathematics and Computer Science, and Open Proteomics Journal.* He has served as a referee for more than 20 journals, a proposal reviewer for *National Science Foundation (NSF)* and *Kentucky Science and Engineering Program,* and a panel reviewer of research proposals for *National Institute of Health (NIH).* In the past five years, Dr. Hong has received over \$150,000 external research grants as the principal investigator from NSF and other agencies.

Dr. Hong also serves as the faculty advisor of the Actuarial Science (ACSI) Program, the curriculum committee chair of ACSI, and the graduate coordinator of the Master's Degree of Professional Science with concentration in ACSI.