

# CURRICULUM VITAE OF ZUOWEI SHEN

## Personal

Name: Zuowei Shen  
Address: Department of Mathematics  
National University of Singapore  
Singapore, 119076  
Email: matzuows@nus.edu.sg

## Education

PhD. 1991, M.Sc. 1987, University of Alberta (Canada)  
B.Sc. 1982, Hohai University (China)

## Professional Experience

Distinguished Professor 2022-present; 2009-2012  
Tan Chin Tuan Centennial Professor 2013-2021  
National University of Singapore  
Professor 2002-present  
Associate Professor; Senior Lecturer; Lecturer 2002-1998-1997-1993  
Department of Mathematics, National University of Singapore  
Research Associate 1991-1993  
Center for the Mathematical Sciences, University of Wisconsin-Madison

## Research Interests

Approximation & Wavelet Theory and Applications, Imaging Sciences, Machine Learning.

## Distinctions

The Public Administration Medal (Silver), Singapore, (2021).  
TWAS Fellow, The World Academy of Sciences, (2020).  
SIAM Fellow, Society for Industrial and Applied Mathematics, USA, (2019).  
AMS Fellow, American Mathematical Society, USA, (2017).  
Highly Cited Researcher, Clarivate Analytics (2016, 2017, 2018); Thomson Reuters,(2016).  
Invited Speaker, International Congress on Industrial and Applied Mathematics (ICIAM), (2015).  
Wavelet Pioneer Award, Society of Photographic Instrumentation Engineers (SPIE), USA, (2012).  
Inaugural Fellow, Singapore National Academy of Science, (2011).  
Invited Speaker, International Congress of Mathematicians (ICM), (2010).  
Outstanding University Researcher Award, the National University of Singapore, (2008); (1997).  
National Science Award of Singapore, Singapore, (1998).  
Andrew Stewart Graduate Prize for Doctoral Research, the University of Alberta, Canada, (1991).

## Member of Editorial Board

Forum of Mathematics, Pi, (2020-); Forum of Mathematics, Sigma, (2020-); SIAM Journal on Mathematical Analysis, (2010-); Multiscale Modeling and Simulation: A SIAM Interdisciplinary Journal, (2009-2020); SIAM Journal on Imaging Sciences, (2015-2017); Mathematics of Computation, (2011-2018); Journal of Approximation Theory, (2001-); Constructive Approximation, (2018-); Applied and Computational Harmonic Analysis, (2007-); Journal of Fourier Analysis and Applications, (2007-); Journal of Machine Learning, (2022-); Inverse Problems and Imaging, (2009-); Chinese Annals of Mathematics, (2021-); CSIAM Transactions on Applied Mathematics, (2020-); Journal of Computational Mathematics, (2007-2017); The Asian Journal of Mathematics, (2015-); East Asia Journal on Applied Mathematics, (2010-2017); The Springer-Birkhauser Applied and Numerical Harmonic Analysis (ANHA) Book Series, (2010-).

## Service

### International Community

- Member, Panel for the Section of Statistics and Data Analysis, International Congress of Mathematician, 2022.
- Member, SIAM Fellows Canvassing Committee, 2020-2021.
- Member, ICIAM Prize Committee for 2019, (ICIAM: the International Council for Industrial and Applied Mathematics).
- Member, Panel for the Section of Mathematics in Science and Technology, International Congress of Mathematician, 2014.

### National University of Singapore

- Director, Institute for Mathematical Sciences, 2023-present.
- Vice Provost (Graduate Education & Special Duties), Dean (Graduate School), 2020-2023.
- Dean, Faculty of Science, 2014-2020.
- Interim Director, Institute of Data Science, 2016-2017.
- Head, Department of Mathematics, Faculty of Science, 2012-2014

### Selected Recent Talks in Conferences/Workshops

- Plenary Speaker, The Second HKSIAM Biennial Conference , August, 2023, Hong Kong, China.
- Plenary Speaker, Congress of Basic Science, July, 2023, Beijing, China.
- Plenary Speaker, The Seventh International Conference on Scientific Computing and Partial Differential Equations, May 2023, Hong Kong, Chian.
- Plenary Speaker, Mathematical and Scientific Machine Learning, August, 2022, Beijing, China.
- Plenary Speaker, Neural Networks and Deep Learning, June, 2022, Fields Institute, Canada.
- Invited Speaker, IMA workshop in Mathematical Foundation and Applications of Deep Learning, August, 2021, Purdue, USA.
- Plenary Speaker, The 3rd National Congress on Big Data and AI , July, 2021, Chengdu, China.
- Keynote Speaker, The 4th International Symposium on Image Computing and Digital Medicine, December 2020, Shenyang, China.
- Invited Speaker, Workshop on Mathematical Machine Learning and Applications, December, 2020, the Pennsylvania State University, USA.
- Plenary Speaker, The 18th Conference of the Chinese Society of Industrial and Applied Mathematics (CSIAM), October, 2020, Changsha, China.
- Invited Speaker, The Jubilee of Fourier Analysis and Applications Conference, September, 2019, University of Maryland, USA
- Plenary Speaker, Workshop on Recent Advances on Mathematical Imaging and Data Science, July 2019, Shanghai Jiaotong University, China.
- Invited Speaker, Workshop on Geometry and Learning from Data in 3D and Beyond, April/May, 2019, IPAM, UCLA, USA.
- Invited Speaker, Workshop on Machine Learning for Multiscale Model, March, 2019, Harvard, USA.
- Plenary Speaker, International Conference on Mathematics of Data Science, November 2018, Old Dominion University, USA.
- Invited Speaker, Workshop on New Deep Learning Techniques, February, 2018, IPAM, UCLA, USA.

### Talks in Major Conferences Before 2018

- Plenary Speaker, Applied Inverse Problems, (AIP 2017), May, 2017, Hangzhou, China.
- Invited Speaker, the 8th International Congress on Industrial and Applied Mathematics (ICIAM), August, 2015, Beijing, China.
- Plenary Speaker, Asian Mathematical Conference, June, 2013, Busan, South Korean.
- Plenary Speaker, The 9th International Conference on Sampling Theory and Applications, May, 2011, Singapore.

- Invited Speaker, International Congress of Mathematicians (ICM), August, 2010 (Section: Numerical Analysis and Scientific Computing), Hyderabad, India.
- Plenary Speaker, The 11th Biannual Conference of the Chinese Society of Industrial and Applied Mathematics (CSIAM), July, 2010, Chongqing, China.
- Plenary Speaker, The 11th Conference on Computational Mathematics of Chinese Universities, July, 2009, Guiyang, China.