CURRICULUM VITAE OF ZUOWEI SHEN

Personal

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National University of Singapore

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Education

University of Alberta (Canada) (Ph.D. 1991) 1987-1991 University of Alberta (Canada) (M.Sc. 1987) 1985-1987 Hohai University (China) (B.Sc. 1982) 1978-1982

Professional Experience

Tan Chin Tuan Centennial Professor 2013–present

National University of Singapore

Distinguished Professor 2009–2012

National University of Singapore

Professor 2002-present

Department of Mathematics, National University of Singapore

Associate Professor–Senior Lecturer–Lecturer 2002–1998–1997–1993

Department of Mathematics, National University of Singapore

Research Associate

Center for the Mathematical Sciences 1991–1993

University of Wisconsin-Madison

Research Interests

Approximation and Wavelet Theory, Time-Frequency Analysis, Imaging Sciences, Machine Learning.

Awards and Honors

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).

Wavelet Pioneer Award, Society of Photographic Instrumentation Engineers (SPIE), USA, (2012).

Inaugural Fellow, Singapore National Academy of Science, (2011).

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).

Selected Recent Talks in Conferences/Workshops

- 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.

Member of Editorial Board

Forum of Mathematics, Pi, (2020–); Forum of Mathematics, Sigma, (2020–); CSIAM Transactions on Applied Mathematics, (2020-); SIAM Journal on Mathematical Analysis, (2010–); SIAM Journal on Imaging Sciences, (2015–2017); Multiscale Modeling and Simulation: A SIAMInterdisciplinary Journal, (2009–2020); Mathematics of Computation, (2011–2018); Constructive Approximation,

(2018–); Journal of Approximation Theory, (2001–); Applied and Computational Harmonic Analysis, (2007–); Journal of Fourier Analysis and Applications, (2007–); The Springer-Birkhauser Applied and Numerical Harmonic Analysis (ANHA) Book Series, 2010–); Inverse Problems and Imaging, (2009–); Journal of Computational Mathematics, (2007–2017); The Asian Journal of Mathematics, (2015–); East Asia Journal on Applied Mathematics, (2010–2017); Journal Mathematics, (2012–).

Service

International Service

- 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.

Service in National University of Singapore

- Vice Provost (Graduate Education & Special Duties), National University of Singapore, 2020—.
- Dean, Graduate School, National University of Singapore, 2020–
- Dean, Faculty of Science, National University of Singapore, 2014–2020.
- Interim Director, Institute of Data Science, National University of Singapore, 2016-2017.
- Head, Department of Mathematics, Faculty of Science, National University of Singapore, 2012-2014.