Curriculum Vitae

Name: ZHU Chengbo/Chen-Bo ZHU

Present Appointment:
Professor, National University of Singapore (NUS)

Contact Information:
Department of Mathematics, National University of Singapore, Block 17, 10 Lower Kent Ridge Road, Singapore 119076
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Research Areas:
- Representation Theory of Lie Groups

Academic/Professional Qualifications:
- B.S. (1984): Zhejiang University, China
- Ph.D. (1990): Yale University, USA (Thesis advisor: Roger Howe)

Awards/Distinctions:
- 1998: Young Scientist Award, Singapore National Academy of Science (SNAS)
- 2001: Young Researcher Award, National University of Singapore (NUS)
- 2014: Fellow, Singapore National Academy of Science (SNAS)
- 2022: Invited speaker, International Congress of Mathematicians (ICM)

Career History:
- 1990-1991: Visiting assistant professor, University of Maryland at College Park, USA
- 1991-current: Lecturer, Senior Lecturer, Associate Professor, Professor, NUS

University Service/Administration:
- July 2003 - June 2004: Assistant Dean, Faculty of Science
- July 2004 - March 2014: Deputy Head, Department of Mathematics
- July 2011 - June 2013: Member, University Promotion Tenure and Appointment Committee
- April 2014 - June 2020: Head, Department of Mathematics
- April 2014 - Dec 2020: Member of Management Board, Institute for Mathematical Sciences (IMS)
- July 2020 - June 2022: Chair of Management Board, Center for Quantitative Finance (CQF)
- July 2023 - June 2026: Deputy Director, Institute for Mathematical Sciences (IMS)

Professional/Editorial Service:
- 2009-2012: President, Singapore Mathematical Society
- 2012-2013: Vice President, Southeast Asian Mathematical Society
- 2015-2019: Associate Editor, Representation Theory (AMS)
- 2021-current: Associate Editor, International Journal of Mathematics (World Scientific)

Selected Publications/Preprints:

1. Zhu, C.-B., Invariant distributions of classical groups, **Duke Math. J.** 65, (1992), 85-119.
2. Aslaksen, H.; Tan, E.-C.; Zhu, C.-B., Invariant theory of special orthogonal groups, **Pacific J. Math.** 168 (1995), no. 2, 207–215.
3. Li, J.-S.; Zhu, C.-B., On the decay of matrix coefficients for exceptional groups, **Math. Ann.** 305 (1996), no. 2, 249–270.
4. Zhu, C.-B.; Huang, J.-S., On certain small representations of indefinite orthogonal groups. **Represent. Theory** 1 (1997), 190–206.
5. Lee, S. T.; Zhu, C.-B., Degenerate principal series and local theta correspondence. II. **Israel J. Math.** 100 (1997), 29–59.
6. Lee, S. T.; Zhu, C.-B., Degenerate principal series and local theta correspondence. **Trans. Amer. Math. Soc.** 350 (1998), no. 12, 5017–5046.
7. Li, J.-S.; Paul, A.; Tan, E.-C., Zhu, C.-B., The explicit duality correspondence of (Sp(p,q),O∗(2n)). **J. Funct. Anal.** 200 (2003), no. 1, 71–100.
8. Zhu, C.-B., Representations with scalar K-types and applications. **Israel J. Math.** 135 (2003), 111–124.
9. Nishiyama, K.; Zhu, C.-B., Theta lifting of unitary lowest weight modules and their associated cycles. **Duke Math. J.** 125 (2004), no. 3, 415–465.
10. Wallach, N.; Zhu, C.-B., Transfer of unitary representations. **Asian J. Math.** 8 (2004), no. 4, 861–879.
11. Nishiyama, K.; Ochiai, H.; Zhu, C.-B., Theta lifting of nilpotent orbits for symmetric pairs. **Trans. Amer. Math. Soc.** 358 (2006), no. 6, 2713–2734.
12. Jiang, D.; Sun, B.; Zhu, C.-B., Uniqueness of Bessel models: the Archimedean case. **Geom. Funct. Anal.** 20 (2010), no. 3, 690–709.
13. Jiang, D.; Sun, B.; Zhu, C.-B., Uniqueness of Ginzburg-Rallis models: the Archimedean case. **Trans. Amer. Math. Soc.** 363 (2011), no. 5, 2763–2802.
14. Sun, B.; Zhu, C.-B., A general form of Gelfand-Kazhdan criterion. **Manuscripta Math.** 136 (2011), no. 1-2, 185–197.
15. Sun, B.; Zhu, C.-B., Multiplicity one theorems: the Archimedean case. **Ann. of Math.** (2) 175 (2012), no. 1, 23–44.
16. Gomez, R.; Zhu, C.-B., Local theta lifting of generalized Whittaker models associated to nilpotent orbits. **Geom. Funct. Anal.** 24 (2014), no. 3, 796–853.
17. Sun, B.; Zhu, C.-B., Conservation relations for local theta correspondence, **J. Amer. Math. Soc.** 28 (2015), no. 4, 939–983.
18. Barbasch, D.; Ma, J.-J.; Sun, B.; Zhu, C.-B., On the notion of metaplectic Barbasch-Vogan duality. **Int. Math. Res. Not. IMRN** 2023, no. 20, 17822–17852.
19. Barbasch, D.; Ma, J.-J.; Sun, B.; Zhu, C.-B., Special unipotent representations of real classical groups: counting and reduction, **under review**.
20. Barbasch, D.; Ma, J.-J.; Sun, B.; Zhu, C.-B., Special unipotent representations of real classical groups: construction and unitarity, **under review**.

Books Edited:

- Representations of Real and P-adic Groups, Vol 2, Lecture Notes Series, Institute for Mathematical Sciences, NUS, edited by Eng-Chye Tan and Chen-Bo Zhu, World Scientific Publishing, 2004.
- Harmonic Analysis, Group Representations, Automorphic Forms and Invariant Theory: In Honor of Roger E. Howe, Vol 12, Lecture Notes Series, Institute for Mathematical Sciences, NUS, edited by Jian-Shu Li, Eng-Chye Tan, Nolan Wallach and Chen-Bo Zhu, World Scientific Publishing, 2007.
- Representation Theory, Number Theory, and Invariant Theory, In Honor of Roger Howe on the Occasion of His 70th Birthday, Progress in Mathematics, Vol. 323, Jim Cogdell, Ju-Lee Kim and Chen-Bo Zhu (Eds.), Birkhäuser Basel, 2017.

- On the Langlands program: Endoscopy and Beyond, Vol 43, Lecture Notes Series, Institute for Mathematical Sciences, NUS, edited by Wee Teck Gan, Dihua Jiang, Lei Zhang and Chen-Bo Zhu, World Scientific Publishing, 2024.

Conferences/Workshops and Research Programs Organized:

- Organizer, Special Session: Representation Theory, The Ninth Pacific Rim Conference in Mathematics (PRCM) (June 17-21, 2024, Darwin, Australia)
- Member of the organizing committee, HKUST-KAIST-NUS Joint Workshop in Mathematics (November 7-9, 2019 at NUS)
- Organizer, Lie Theory Day (March 22, 2019 at NUS)
- Member of the organizing committee, On the Langlands Program: Endoscopy and Beyond (17 Dec 2018 - 18 Jan 2019 at IMS of NUS)
- Organizer, Workshop on Ergodic Theory and Dynamical Systems (in conjunction with Oppenheim Lecture 2017) (Feb 14-16, 2017 at NUS)
- Co-chair of the organizing committee, New Developments in Representation Theory (March 6-31, 2016 at IMS of NUS)
- Member of the organizing committee, Representation Theory, Number Theory and Invariant Theory (in honor of Roger Howe) (June 1-5, 2015 at Yale University)
- Organizer, Workshop on Representation Theory and Automorphic Forms (in conjunction with Oppenheim Lecture 2015) (Jan 27-29, 2015 at NUS)
- Organizer, Workshop on Representation Theory (July 21-23, 2014 at NUS)
- Organizer, Representation Theory Day (April 16, 2014 at NUS)
- Chair of the organizing committee, 4th Singapore Mathematics Symposium (September 27, 2013 at NTU)
- Co-organizer, Number Theory Day (September 11, 2013 at NUS)
- Chair of the organizing committee, Special Session: Algebra/Representation/Lie Theory, Asian Mathematical Conference 2013 (June 30-July 4, 2013 at Busan, Korea)
- Chair of the organizing committee, Branching Laws (March 11-31, 2012 at IMS of NUS)
- Organizer, Workshop on Geometry and Representation Theory (January 26-28, 2011 at NUS)
- Organizer, Workshop on Harmonic Analysis and Invariant Distributions (December 14-16, 2009 at NUS)
- Organizer, Workshop on Representation Theory and Automorphic Forms (June 25-26, 2008 at NUS)
- Member of the organizing committee, International Conference on Harmonic Analysis, Group Representations, Automorphic Forms and Invariant Theory (in Honor of Roger Howe) (Jan 9-11, 2006 at NUS)
- Member of the organizing committee, Asian Mathematical Conference 2005 (July 20-23, 2005 at NUS)
- Member of the organizing committee, Representation Theory of Lie Groups (July 2002-Jan. 2003 at IMS of NUS)
- Member of the organizing committee, NUS-JSPS Workshop on Algebra (July 9-13, 2001 at NUS)
- Organizer, Workshop on Representation Theory and Invariant Theory (March 20-22, 2000 at NUS)

Updated: March, 2024