Zhenhua Wang

Curriculum Vitae

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Education

09/2013–05/2019   **Ph.D. in Mathematics**, *The University of Houston*, Houston, Texas.
Under supervision of David Blecher

09/2010–07/2013   **M.S. in Mathematics**, *Jilin University*, Changchun, China.

09/2006–07/2010   **B.S. in Mathematics and applied matheamtics**, *Jilin University*, Changchun, China.

Research Interest

Operator algebras, operator theory, Jordan operator algebras and operator space.

Refereed Journal Publications

1. **Involutive operator algebras** (with D. P. Blecher), preprint 2018, to appear Positivity.
2. **Breathers of discrete one-dimensional nonlinear Schrödinger equations in inhomogeneous media** (with S. Ji), To appear Taiwanese. J. Math. (2018) DOI: 10.11650/tjm/180804
3. **Jordan operator algebras: basic theory** (with D. P. Blecher), Math. Nachr. **291** (2018), 1629–1654.
4. **Roots in Banach and operator algebras** (with D. P. Blecher), J. Integral Equations Operator Theory **85** (2016), 63–90.
5. **Periodic solutions of second order differential equations** (with X. Jia and L. Guan), J. Jilin University Science Edition **51** (2013), 369–372.

Submitted Journal Publications

6. **Jordan operator algebras revisited** (with D. P. Blecher) https://arxiv.org/abs/1812.09995

Paper in preparation

7. **Hereditary JC^*-algebras and Jordan Pedersen ideals**, manuscript in preparation.
8. **Dimension theory and JC^*-algebras**, manuscript in preparation.

Presentations and Talks

10/2018   **Noncommuative topology and operator $*$-algebra**, *Texas A&M University*, College Station, TX.
Noncommutative geometry seminar

10/2018   **Noncommuative topology and operator $*$-algebra**, *Baylor University*, Waco, TX.
The Texas Analysis and Mathematical Physics Symposium

07/2018   **Real positivity in Jordan operator algerbas**, *East China Normal Universiry*, Shanghai, China.
International Workshop on Operator Theory and its Applications

05/2018   **Introduction to operator $*$-algebras**, *Miami University*, Oxford, OH.
Great Plains Operator Theory Symposium

03/2018	**Introduction to Jordan operator algebras**, *Baylor University*, Waco, TX.
	Brazos Analysis Seminar
10/2017	**Introduction to Jordan operator algebras**, *University of Houston*, Houston, TX.
	Analysis Seminar
04/2017	**Jordan operator algebras with contractive approximate identities**, *University of Houston*, Houston, TX.
	Graduate Students Paper Presentations

Journal Referee

- **Journal of Mathematical Analysis and Applications**
- **International Mathematics Research Notices**

Teaching Experience

University of Houston

08/2017– 12/2018	**Instructor of Record**.
	Carried full responsibility of teaching freshmen level course-Calculus for Business of which the size of ranged from about 80 to almost 200. Posted typed notes and solution key to the students on my **UH math department webpage**
09/2013– 05/2017	**Graduate Teaching Assistant**.
	Held recitation sessions for Calculus 1, 2, and 3. Provided detailed explanation to both theory and application problems. Graded and provided one-on-one tutoring to students for the following entry-level to advanced math courses: Calculus, Differential Equations, Linear Algebra, Complex Analysis, Real Analysis, Probability, and Statistics.

Advanced course taken

C^*-algebras associated with dynamical systems, complex analysis, complex geometry, convexity and Choquet theory, differential geometry, function analysis, harmonic analysis, modern algebra, operator space, real variable, representation theory

Awards

2013–2018	Doctoral Student Tuition Fellowship
2010–2013	Graduate Student Scholarship
2009	First Prize in Mathematical Contest in Modeling of Jilin University
2009	Outstanding Undergraduate Student Scholarship
2008	Outstanding Undergraduate Student Scholarship

Memberships and Service

UH SIAM Graduate Student Chapter

| 2017–2018 | **Treasurer**, http://www.math.uh.edu/uhsiam/. |
| | Monitor budget. Keep a record of all transactions. Construct industrial and academic seminars to students. |

Chinese Christian Fellowship at UH

| 2015–2018 | **President**. |
| | Preside over meetings of the organization. Develop and organize events. |

Conferences Attended

| 10/2018 | **Baylor University**, TX. |
| | The Texas Analysis and Mathematical Physics Symposium |

09/2018	**Texas A&M University**, TX.
	Brazos Analysis Seminar
07/2018	**East China Normal University**, Shanghai, China.
	International Workshop on Operator Theory and its Applications
06/2018	**University of Houston**, TX.
	Mini-workshop on the Cuntz semigroup
05/2018	**Miami University**, OH.
	GPOTS
03/2018	**Baylor University**, TX.
	Brazos Analysis Seminar
11/2017	**University of Houston**, TX.
	Brazos Analysis Seminar
07/2017	**University of Houston**, TX.
	Applications of Model Theory to Operator Algebras
03/2017	**Texas A&M University**, TX.
	Brazos Analysis Seminar
07/2015	**Texas A&M University**, TX.
	Texas A&M's Workshop in Analysis and Probability: From Commutators to BCP Operators
05/2015	**University of Louisiana at Lafayette**, LA.
	Classification Of C^*-Algebras, Flow Equivalence Of Shift Spaces, And Graph And Leavitt Path Algebras

Computer skills

Basic	R, HTML, Makedown, Matlab
Proficient	LaTeX, Mathematica, Microsoft Office Tools

Languages

Mandarin	**Mother tongue**
English	**Fluent with high proficiency**

References

David Blecher	**Professor**, *University of Houston*.
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Shanyu Ji	**Professor**, *University of Houston*.
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Mark Tomforde	**Professor**, *University of Houston*.
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Mehrdad Kalantar	**Assistant Professor**, *University of Houston*.
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