

Zhen Huan

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| CONTACT INFORMATION | School of Mathematics Sun Yat-sen University Xingangxi Road 135, Haizhu, Guangzhou, Guangdong, 510275, China | Email: huanzhen2016@gmail.com Webpage: https://huanzhen84.github.io/zhenhuan/ |
| RESEARCH INTERESTS | Algebraic topology, algebraic geometry and mathematical physics. | |
| POSITION | Sun Yat-sen University , Guangzhou, China Research Associate, August 2017-present | |
| VISITING POSITION | The University of Melbourne , Melbourne, Australia Academic Visitor, October 2018-November 2018. Supervisor: Nora Ganter. Universität Duisburg-Essen , Essen, Germany Research Assistant, April 2018-July 2018. Supervisor: Marc N. Levine. | |
| EDUCATION | University of Illinois at Urbana-Champaign Ph.D. in Mathematics, May 2017 ¹ <ul style="list-style-type: none">• Dissertation Defense Date: May 5th 2016• Dissertation Title: Quasi-Elliptic Cohomology• Advisor: Charles Rezk Indiana University Bloomington M.A. in Mathematics, October 2009 ² Peking University B.A. in Mathematics, May 2006 <ul style="list-style-type: none">• Thesis Title: Morse Theory and Bott Periodicity• Advisor: Houhong Fan | |
| PUBLICATION | <ul style="list-style-type: none">• Zhen Huan, <i>Quasi-Elliptic Cohomology I</i>, Advances in Mathematics. Volume 337, 15 October 2018, Pages 107-138. https://doi.org/10.1016/j.aim.2018.08.007.• Zhen Huan, <i>Quasi-Elliptic Cohomology and its Power Operations</i>, Journal of Homotopy and Related Structures, 13(4), 715-767. http://link.springer.com/article/10.1007/s40062-018-0201-y.• Zhen Huan, <i>Quasi-elliptic cohomology</i>, Thesis (Ph.D.)–University of Illinois at Urbana-Champaign. 2017. 290 pp. http://hdl.handle.net/2142/97268. | |

¹My PhD thesis is 290 pages long. After my defense, I revised the paper for one year to make it more readable and classy under Charles Rezk and Matthew Ando's advice.

²During the phase of doctoral research, my research interest switched to algebraic topology and I transferred to UIUC in 2010 whose algebraic topology group was much larger.

PREPRINT

- Zhen Huan, *Quasi-Elliptic Cohomology and its Spectrum*, available at arXiv:1703.06562. Submitted for publication.
- Zhen Huan, *Universal Finite Subgroup of Tate Curve*, available at arXiv:1708.08637. Submitted for publication.
- Zhen Huan, *Quasi-Theories*, available at arXiv:1809.06651.
- Zhen Huan, *Quasi-Theories and Their Equivariant Orthogonal Spectra*, available at arXiv:1809.07622.
- Zhen Huan, *Almost Global Homotopy Theory*, available at arXiv:1809.08921.

WORK IN PROGRESS

- Zhen Huan and Nathaniel Stapleton, *Level Structures, Loop Spaces, and Morava E-theory*. In Preparation.
- Zhen Huan, *Quasi-Theories and Their Power Operations*. In Preparation.

INVITED TALKS

- The University of Melbourne mini lecture series, *Almost global homotopy theory*, November 14 and 16, 2018.
- The University of Melbourne mini lecture series, *Quasi-elliptic cohomology*, November 7 and 9, 2018.
- Fudan University Topology Seminar, *Almost global homotopy theory*, October 10, 2018.
- Huazhong University of Science and Technology seminar, *Almost global homotopy theory*, September 25, 2018.
- Georg-August-Universität Göttingen Seminar, *Quasi-elliptic cohomology*, June 6, 2018.
- The University of Duisburg-Essen Research Seminar Arithmetic Geometry, *Quasi-elliptic cohomology*, May 17, 2018.
- Chinese Academy of Sciences Topology Seminar, *Quasi-elliptic cohomology*, March 29, 2018.
- Sun Yat-sen University, Zhuhai Campus, *Quasi-elliptic cohomology*, January 12, 2018.
- Peking University Geometry and Topology Seminar, *Quasi-elliptic cohomology*, November 30, 2017.
- South China Normal University Topology Seminar, *Quasi-elliptic cohomology*, November 16, 2017.
- Southern University of Science and Technology Topology Seminar, *Quasi-elliptic cohomology*, November 14, 2017.
- Poster Session, Schubert Calculus International Festival, *Quasi-elliptic cohomology*, November 9, 2017.
- AMS Special Session on Homotopy Theory, *Quasi-elliptic cohomology*, November 5, 2017.
- Nankai University Algebraic Topology Seminar, *Quasi-elliptic cohomology*, October 10, 2017.
- Parallel Session, Conference "Homotopy theory: tools and applications", *Quasi-elliptic cohomology*, July 17, 2017.
- Informal Session, Conference on invertible objects and duality in derived algebraic geometry and homotopy theory, the University of Regensburg, Germany, *Quasi-elliptic cohomology*, April 3, 2017.
- AMS Special Session on Homotopy Theory, *Quasi-elliptic cohomology*, April 1, 2017.
- AMS Special Session on Topology and Arithmetic, *Quasi-elliptic cohomology*, October 30, 2016.
- University of Chicago Algebraic Topology Seminar, *Quasi-elliptic cohomology*, November 25 2014.

- Northwestern University Algebraic Topology Seminar, *Quasi-elliptic cohomology*, November 24 2014.

TEACHING EXPERIENCE

University of Illinois at Urbana-Champaign

Main instructor of

- NetMath MATH 231-Calculus II, Summer 2016.
- MATH 124-Finite Mathematics, Spring 2016.
- MATH 124-Finite Mathematics, Fall 2015.
- MATH 124-Finite Mathematics, Spring 2015.
- MATH 119-Ideas in Geometry, Fall 2013.

Led discussion sessions for

- MATH 221-Calculus I, Fall 2016.
- MATH 231-Calculus II, Fall 2012.
- MATH 234-Calculus for Business I, Spring 2012.
- MATH 231-Calculus II, Fall 2011.

FELLOWSHIP AND AWARDS

- James P. Williams Memorial Award in recognition of outstanding scholastic achievement in the first year of graduate studies, from Department of Mathematics, Indiana University, Bloomington, 2007.

SERVICE

- Co-organizer of the conference "International Workshop on Algebraic Topology" at Southern University of Science and Technology, June 6-9, 2018.

REFERENCES

Doctoral Supervisor

Charles Rezk, University of Illinois at Urbana-Champaign, rezk@math.uiuc.edu 1(217) 265-6309.

Dissertation Committee Member

Matthew Ando, University of Illinois at Urbana-Champaign, mando@illinois.edu 1(217) 244-2846.

Host

Thomas Schick, Georg-August-Universität Göttingen, thomas.schick@math.uni-goettingen.de 49(551)39-7766.

Host

Chenchang Zhu, Georg-August-Universität Göttingen, zhu@uni-math.gwdg.de 49(551)39-7799.