# Yu Zhang

#### Personal Information

Email zhang.4841@osu.edu

Homepage https://yuzhangmath.github.io/

Address Department of Mathematics, Nankai University, No.94 Weijin Road, Nankai District, Tianjin, P.R.China 300071

## **Employment**

Sep 2020 - present Nankai University Postdoctoral Researcher, Collaborating Advisor: Xiangjun Wang

### Education

2014 - 2020 The Ohio State University Columbus, Ohio, USA

Ph.D. in Mathematics, Dissertation Advisor: John E. Harper

2010 – 2014 Peking University Beijing, China

B.S. in Mathematics, Dissertation Advisor: Huijun Fan

## Publications and preprints

- On the secondary differentials of the Adams spectral sequence for p>3 (joint with X. Wang and Y. Wang), In preparation
- The p-primary subgroup of the cohomology of  $BPU_n$  in dimension 2p+6 (joint with Z. Zhang, X. Wang and L. Zhong), Submitted
- Homotopy pro-nilpotent structured ring spectra and topological Quillen localization

Submitted

- $\circ$  The p-local cohomology of  $BPU_n$  in dimensions less than 2p+5 (joint with X. Gu, Z. Zhang and L. Zhong), Submitted
- Topological Quillen localization of structured ring spectra
   (joint with J. E. Harper), Tbilisi Mathematical Journal 12(3):69–91, 2019

#### Grants received

2021 - 2022 Postdoctoral International Exchange Program

2021 - 2022 Tianjin City Talents Recruitment Program

#### Invited talks

TBD **Academy of Mathematics and Systems Science**, National Conference on Algebraic and Geometric Topology, "TBD"

Nov 23, 2021 **Chern Institute of Mathematics**, Higher Structures in Geometry and Physics (online), "Structured ring spectra and Topological Quillen homology"

- Jul 25, 2021 Shanghai Center for Mathematical Sciences, IWoAT 2021 Junior Researcher Forum, "Some spectral sequence computations towards stable homotopy groups of spheres at odd primes"
- Jul 17, 2021 **Northeast Normal University**, National Conference for Young Topologists, "Some spectral sequence computations towards stable homotopy groups of spheres at odd primes"
- Dec 16, 2020 **Vietnam National University**, The 8th East Asian Conference on Algebraic Topology (online), "Koszul duality and TQ-homological Whitehead theorem of structured ring spectra"
- Nov 4, 2020 **University of Regina**, Topology Seminar (online), "Koszul duality and TQ-homological Whitehead theorem of structured ring spectra"
- Nov 21, 2019 **Binghamton University**, Geometry and Topology Seminar, "Topological Quillen localization of structured ring spectra"
- Nov 19, 2019 **The University of Chicago**, Algebraic Topology Seminar, "Topological Quillen localization of structured ring spectra"
- Nov 1, 2019 **Penn State Altoona**, Topology Seminar, "Topological Quillen localization of structured ring spectra"
- Oct 30, 2019 **Indiana University Bloomington**, Topology Seminar, "Topological Quillen localization of structured ring spectra"
- Oct 29, 2019 **University of Illinois at Urbana-Champaign**, Topology Seminar, "Topological Quillen localization of structured ring spectra"
- Jul 29, 2019 **Norwegian University of Science and Technology**, Equivariant Topology and Derived Algebra conference, "Topological Quillen completion and localization of structured ring spectra"
- Mar 30, 2019 **University of Illinois at Urbana-Champaign**, Graduate Student Topology and Geometry Conference, "An easy proof of the homological Whitehead theorem for nilpotent spaces"
- Sep 27, 2018 **The Ohio State University**, Homotopy Theory Seminar, "Localization of structured ring spectra with respect to TQ homology"
- Jul 10, 2018 **University of Copenhagen**, Young Topologists Meeting, "Bousfield localization of structured ring spectra"

## Conference participation

- TBD **National Conference on Algebraic and Geometric Topology**, at Academy of Mathematics and Systems Science
- Nov 2021 **Higher Structures in Geometry and Physics (online)**, organized by Chern Institute of Mathematics
  - Jul 2021 **IWoAT 2021 Junior Researcher Forum (online)**, organized by Shanghai Center for Mathematical Sciences
- Jul 2021 **Summer School on Equivariant Homotopy Theory**, at Shanghai Center for Mathematical Sciences
- Jul 2021 National Conference for Young Topologists, at Northeast Normal University

- Dec 2020 The 8th East Asian Conference on Algebraic Topology (online), organized jointly by Vietnam National University and Vietnam Institute for Advanced Study in Mathematics
- Aug 2020 **The First Joint Workshop on Topology and Data Science**, at Chongqing University of Technology
- May 2020 Midwest Topology Seminar (online), organized by Wayne State University
- Oct 2019 Mayday 2019, at The University of Chicago
- Sep 2019 AMS Fall Central Sectional Meeting, at University of Wisconsin-Madison
- Aug 2019 International Workshop on Algebraic Topology, at Shanghai Center for Mathematical Sciences
- Aug 2019 **Summer School on Equivariant Homotopy Theory**, at Shanghai Center for Mathematical Sciences
- Jul 2019 **Equivariant Topology & Derived Algebra**, at Norwegian University of Science and Technology
- Jul 2019 Young Topologists Meeting, at École polytechnique fédérale de Lausanne
- May 2019 Midwest Topology Seminar, at Michigan State University
- Apr 2019 Shanks Workshop on Homotopy Theory, at Vanderbilt University
- Mar 2019 **Graduate Student Topology and Geometry Conference**, at University of Illinois at Urbana-Champaign
- Mar 2019 Workshop on Functor Calculus, at The Ohio State University
- Sep 2018 Midwest Topology Seminar, at University of Kentucky
- Jul 2018 Young Topologists Meeting, at University of Copenhagen
- Apr 2018 Midwest Topology Seminar, at Indiana University Bloomington
- Mar 2018 AMS Special Session on Homotopy Theory, at The Ohio State University
- Mar 2018 Midwest Topology Seminar, at Northwestern University
- Nov 2017 Midwest Topology Seminar, at Wayne State University
- Jul 2017 **Homotopy Theory: Tools and Applications**, at University of Illinois at Urbana-Champaign
- May 2017 The MIT Talbot Workshop: Obstruction theory for structured ring spectra, at Gooding Talbot house,
- Mar 2017 Shanks Workshop on Homotopy Theory, at Vanderbilt University
- Feb 2017 Conference for Young researchers in homotopy theory and categorical structures, at Max Planck Institute for Mathematics

## Teaching Experience

As lecturer in Nankai University

Autumn 2021 Advanced Mathematics for Liberal Arts

As teaching associate in The Ohio State University

Autumn 2018 MATH 2177: Mathematical Topics for Engineers

Autumn 2017 MATH 1172: Engineering Mathematics A Autumn 2016 MATH 1172: Engineering Mathematics A

Spring 2016 MATH 1152: Calculus II

## Languages

English: fluent (speaking, reading, writing)

French: basic (reading)

Mandarin: native language