

# Xiping Zhang

## Curriculum Vitae

Department of Mathematics  
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" Eureka! " - Archimedes of Syracuse

### General Research Interest

My research interest is in the study of singularities in algebraic geometry, in particular the computation of characteristic classes and local invariants on singular spaces using intersection theory. I am currently interested in how the characteristic classes reflect the geometry of a singular variety, and how group actions affect the characteristic classes. Also I am interested in how to compute (motivic) Chern classes, local Euler obstructions, and sectional Euler characteristics of interesting singular spaces.

### Education

- 2012–2018 **PHD in Mathematics**, *Department of Mathematics*, Florida State University, Tallahassee, FL. United States.
- 2008–2012 **Bachelor in Mathematics**, *Department of Mathematics*, Zhejiang University, Hangzhou, Zhejiang. China.
- 2008–2012 **Honor Degree in Science**, *Chu Kochen Honors College*, Zhejiang University, Hangzhou, Zhejiang, China.

### Publications

- X. Zhang **Chern classes and Characteristic Cycles of Determinantal Varieties**, *arXiv:1605.05380*, submitted, 2017.
- X. Zhang **Local Euler Obstruction and Chern-Mather Class of Determinantal Varieties**, *arXiv:1706.02032*, preprint, 2017.
- X. Zhang **Equivariant Chern Classes of Determinantal Varieties**, *preprint*, 2017.
- X. Zhang **Equivariant Segre Class and a Formula on Equivariant Chern-Schwartz-MacPherson Classes of Hypersurfaces**, *preprint*, 2017.

### Conference Talks and Posters

- Oct, 2017 **Talk on Equivariant Characteristic Classes and Local Invariants on Determinantal Varieties**, *Geometric Methods in Representation Theory Seminar*, University of North Carolina at Chapel Hill, NC, Unites States.
- Oct, 2017 **Poster on Characteristic Classes and Local Euler Obstructions on Determinantal Varieties**, *Algebraic Geometry Northeastern Series*, Northeastern University, Boston, MA, Unites States.

Apr, 2017 **Talk on Characteristic Classes over Determinantal Varieties**, *Midwest Algebraic Geometry Graduate Conference*, University of Illinois at Chicago, Chicago, IL, Unites States.

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## Other Talks

Apr, 2017 **Characteristic classes of Determinantal Varieties**, *Algebra and its applications Seminar*, Florida State University.

Mar, 2017 **Hirzebruch–Riemann–Roch theorem on Singular Spaces**, *Algebra and its applications Seminar*, Florida State University.

Nov, 2016 **G.A.G.A.Theorem**, *Algebra and its applications Seminar*, Florida State University.

Mar, 2016 **Intersection Theory on Grassmanians**, *Algebra and its applications Seminar*, Florida State University.

Oct, 2015 **Introduction to the Equivariant World**, *Algebra and its applications Seminar*, Florida State University.

Mar, 2015 **Local Euler Obstructions**, *Algebra and its applications Seminar*, Florida State University.

Nov, 2014 **Introduction to Intersection Theory**, *Algebra and its applications Seminar*, Florida State University.

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## Professional Travel

May, 2017 **Visiting Researcher**, *Korea Institute for Advanced Study*, Seoul, Korea.

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## Attended Conference and Workshop

July, 2017 **International Conference on Singularity Theory**, *East China Normal University*, Shanghai, China.

Mar, 2017 **The Georgia Algebraic Geometry Symposium**, *University of Georgia*, Athens, GA, Unites States.

Nov, 2016 **Algebraic Geometry Northeastern Series**, *University of Massachusetts Amherst*, Amherst, MA, Unites States.

July, 2015 **Summer Research Institute on Algebraic Geometry**, *University of Utah*, Salt Lake City, Utah, Unites States.

Feb, 2015 **Local and Global Invariants of Singularities**, *Centre International de Rencontres Mathématiques*, Luminy, Marseille, France.

Nov, 2014 **Algebraic Geometry Northeastern Series**, *Stony Brook University*, Long Island, NY, Unites States.

May, 2013 **A conference to describe the published scientific work of Jim Simons on the occasion of his 75th birthday**, *CUNY Graduate Center*, New York, Unites States.

Dec, 2010 **International Congress of Chinese Mathematicians**, *Tsinghua University*, Beijing, China.

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## Teaching Experience

- Fall 2017 **Senior Mentor and Instructor for PreCalculus**, *Florida State University*.  
Summer 2017 **Solo Instructor for Linear Algebra**, *Florida State University*.  
Spring 2017 **Solo Instructor for Calculus III**, *Florida State University*.  
Fall 2016 **Solo Instructor for Calculus III**, *Florida State University*.  
Summer 2016 **Solo Instructor for Calculus I**, *Florida State University*.  
Spring 2016 **Solo Instructor for PreCalculus**, *Florida State University*.  
Fall 2015 **Recitation Instructor for Calculus I**, *Florida State University*.  
Spring 2015 **Solo Instructor for PreCalculus**, *Florida State University*.  
Fall 2014 **Recitation Instructor for Calculus I**, *Florida State University*.  
Spring 2014 **Solo Instructor for PreCalculus**, *Florida State University*.  
2012–2013 **Proctoring Teaching Assistant**, *Florida State University*.

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## Professional Membership

- 2014 **Membership of Pi Mu Epsilon Honor Society**, *Awarded to the top graduate student in their second year of math program..*  
2013 **Membership of American Mathematical Society..**

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## Honors and Awards

- 2012 **FSU math department Dean's Scholarship**, *Awarded to the outstanding new graduate students.*

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## Languages

Native	<b>Chinese</b>	<i>Mother-tongue</i>
Fluent	<b>English</b>	<i>Fluently in professional work</i>
Basic	<b>French</b>	<i>Reading only</i>

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## Computer skills

- Basic HTML,  $\LaTeX$ , OpenOffice, Microsoft Windows

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## General Interests

Teaching, Reading, Music, Basketball, Swimming, Cooking

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## References

- Dr. Paolo Aluffi** *Professor*  
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- Dr. Jörg Schürmann** *Professor*  
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- Dr. Andrzej Weber** *Professor*  
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- Dr. Penelope Kirby** *Coordinator of Graduate Teaching Assistants*  
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