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# Jenny Kenkel

## Employment

**Postdoctoral Assistant Professor**, *University of Michigan*, Ann Arbor, MI. **2020-present**

**University Research Postdoctoral Fellowship**, *University of Kentucky*, Lexington, KY. **2019-2020**

## Education

**Ph.D.**, *University of Utah*, Salt Lake City, UT. **August 2019**

**Bachelor of Arts**, *Washington University in St. Louis*, St. Louis, *With Honors*. **May 2013**

## Ph.D. thesis

**Title:** *Local Cohomology Modules of Thickenings*

**Advisor:** Anurag Singh

## Publications

**“Asymptotic Behavior of Differential Powers”**, Jennifer Kenkel, Lillian McPherson, Janet Page, Daniel Smolkin, Monroe Stephenson, Fuxiang Yang, <https://arxiv.org/abs/2111.15653>. **2021**

Jennifer Kenkel, “*Isomorphisms Between Local Cohomology Modules As Truncations of Taylor Series*”, arXiv:2005.11898. **2020**

Zhibek Kadyrsizova, Jennifer Kenkel, Janet Page, Jyoti Singh, Karen E. Smith, Adela Vraciu, Emily E. Witt, “*Cubic Surfaces of Characteristic Two*”, *Trans. Amer. Math. Soc.*, Volume 374,9. **2020**

Zhibek Kadyrsizova, Jennifer Kenkel, Janet Page, Jyoti Singh, Karen E. Smith, Adela Vraciu, Emily E. Witt, “*Lower Bounds on the  $F$ -pure Threshold and Extremal Singularities*”, To Appear in *Trans. Amer. Math. Soc.*. **2020**

Jennifer Kenkel and Kyle Maddox and Thomas Polstra and Austyn Simpson, “ *$F$ -nilpotent rings and permanence properties.*”, To appear in *J. Commut. Algebra*. **2020**

Jennifer Kenkel, “*Lengths of Local Cohomology of Thickenings*”, arXiv:1912.02917. **2019**

Madeline Brandt, William Dickinson, AnnaVictoria Ellsworth, Jennifer Kenkel, Hanson Smith, “*Optimal Packings of Two to Four Equal Circles on Any Flat Torus*”, arXiv:1708.05395. **August 2017**

Luca Weihs, Bill Robinson, Emile Dufresne, Jennifer Kenkel, Kaie Kubjas, Reginald L. McGee II, Nhan Nguyen, Elina Robeva, Mathias Drton, “*Determinantal Generalizations of Instrumental Variables*”, *Journal of Causal Inference*. **February 2017**

## Talks

### AMS Sectional Talks

- “Lengths Of Local Cohomology Using Some Surprising Hilbert Kunz Functions”**, *University of Tennessee.* October 2022
- “Construction of Local Cohomology Modules With an FI Structure.”**, *Virtual.*, Intended to take place at the University of Tennessee. October 2020
- “Construction of Local Cohomology Modules With an FI Structure.”**, *Virtual.*, Intended to take place at Pennsylvania State University. October 2020
- “Local Cohomology of Thickenings.”**, *Baltimore Convention Center.*, Joint Mathematics Meeting. January 2019
- “Local Cohomology Modules of Determinantal Rings”**, *University of Michigan.* October 2018
- “Lengths of Local Cohomology Modules of Thickenings”**, *North-eastern University.* April 2018
- “Lengths of Local Cohomology Modules of Thickenings”**, *Portland State University.* April 2018
- “Local Cohomology of Thickenings”**, *Washington State University.* April 2017

### Other Conference Talks

- “Differential Powers of Ideals”**, *University of Minnesota*, 2022 AWM Research Symposium, Special Session Homological and Combinatorial Aspects of Commutative Algebra. June 2022
- “Local Cohomology of Thickenings on Sequences of Rings”**, *A Virtual Online Conference, CAZOOM.* April 2020
- “Local Cohomology of Thickenings on Sequences of Rings”**, *Clemson University*, Algebra Seminar. April 2020
- “Local Cohomology”**, *University of Minnesota*, Graduate Workshop in Commutative Algebra for Women & Mathematicians of Other Minority Genders. April 2019
- “Local Cohomology of Thickenings”**, *University of Nebraska, Lincoln*, KUMUNU Jr. April 2017

### Seminar Talks

- “Lengths Of Local Cohomology Using Some Surprising Hilbert Kunz Functions ”**, *Purdue University.* November 2022
- “Lengths Of Local Cohomology Using Some Surprising Hilbert Kunz Functions ”**, *University of Notre Dame.* October 2022
- “Lengths Of Local Cohomology Using Some Surprising Hilbert Kunz Functions ”**, *University of Utah.* October 2022
- “FI Algebras”**, *University of California Riverside.* January 2021
- “Local Cohomology of Thickenings on Sequences of Rings”**, *University of Arkansas.* February 2021
- “Briggs’ Proof of a Conjecture of Vasconcelos”**, *University of Michigan*, Preprint algebraic geometry seminar. October 2020

## Teaching Experience

### *As Primary Instructor*

- Introduction to Modern Algebra**, *Primary Instructor*, University of Michigan, Two sections. **Winter 2022, Fall 2022**  
In person
- Linear Algebra**, *Primary Instructor*, University of Michigan, Two sections. **Fall 2021**  
In person
- Linear Algebra**, *Primary Instructor*, University of Michigan, Two sections. **Fall 2020, Winter 2021**  
Remote
- Discrete Math**, *Primary Instructor*. **Summer 2018**
- Linear Algebra**, *Primary Instructor*. **Summer 2017**
- Applied Statistics**, *Primary Instructor*. **Fall 2016**
- Introduction to Statistics**, *Primary Instructor*. **Fall 2015**
- Precalculus**, *Primary Instructor*. **Fall 2014**
- Business Algebra**, *Primary Instructor*. **Fall 2013, Spring 2014**

### *Other*

- U(M) 2020 workshop**, *3 day, 12 hour virtual workshop*, **July 2020**  
<https://www.amiibl.org/university-of-michigan-july-2020-workshop>.
- Alliance for Michigan Inquiry Based Learning (Amiibl) workshop**, *1 day virtual workshop*, **June 2022**  
<https://www.amiibl.org/june-2022-workshop>.
- Teacher Training Facilitator**, *Organized workshops for two-week long instructor training, gave feedback on practice lectures and assignments.* **August 2018**
- Math Center Tutor**, *Tutored drop-in University of Utah students on topics from introductory to intermediate level undergraduate math classes.* **Fall 2013, Spring 2014, Fall 2015, Fall 2016**

## Service

### *Conferences and Seminars*

- Organizer**, *Special Session on Commutative Algebra*, AMS Sectional at the University of Utah. **Fall 2022**
- Organizer**, *Special Session on Recent Developments in Commutative Algebra*, AMS Sectional at Purdue. **Spring 2022**
- Organizer**, *Virtual Commutative Algebra Seminar*, University of Michigan. **Spring 2022, Fall 2022**
- Graduate Student Commutative Algebra Seminar Coordinator**, University of Utah. **2016-2018**
- Graduate Student Advisory Committee Colloquium Chair**, University of Utah. **2016-2017**

## Outreach

<b>Math Corps Instructor</b> , <i>University of Michigan</i> , The Math Corps program is a free summer camp for 7th-9th graders. I taught two 40 minute classes, three days a week, on graph theory.	<b>Summer 2022</b>
<b>Job Application Process Panelist</b> , “ <i>Upcoming Researchers in Commutative Algebra</i> ” ( <i>URiCA</i> , pronounced “eureka”), University of Nebraska.	<b>Spring 2022</b>
<b>Undergraduate Math Club Talk</b> , <i>University of Michigan</i> .	<b>Fall 2021</b>
<b>Undergraduate Math Club Talk</b> , <i>University of Kentucky</i> .	<b>Fall 2018</b>
<b>Helped Undergraduates with <math>\LaTeX</math> at a SIAM AWM <math>\LaTeX</math>workshop</b> , <i>University of Utah</i> .	<b>Fall 2018</b>
<b>Women in Math Panelist for the University of Utah ACCESS Program</b> , The ACCESS Program provides a supportive path for women in the sciences, starting with a summer long introduction to Science at the University of Utah..	<b>Summer 2018</b>
<b>Undergraduate Student Orientations Math Talks</b> , <i>University of Utah</i> .	<b>Summer 2018</b>
<b>SACNAS Poster presentation</b> , <i>University of Utah</i> .	<b>Fall 2017</b>
<b>Calculus Carnival Volunteer</b> , <i>University of Utah</i> .	<b>Fall 2017</b>
<b>Math Medley at the Leonardo Museum</b> , Spoke on “ <i>Local Cohomology</i> ” to a broad audience.	<b>Spring 2017</b>
<b>Stirling Scholarship Judge.</b>	<b>February 2017, 2018</b>
<b>Science Day Volunteer</b> , <i>University of Utah</i> .	<b>Fall 2014</b>

## Other

<b>Attended Mathematics Communication Seminar</b> , <i>University of Michigan</i> , Led by Sam Hansen, creator of the podcast “Relatively Prime.”.	<b>Fall 2022</b>
<b>Reader and reviewer for the AMS book aquisition group.</b>	<b>Summer 2022</b>
<b>Referee for Rocky Mountain Journal.</b>	<b>Spring 2022</b>
<b>Referee for Czechoslovak Mathematical Journal.</b>	<b>Spring 2021</b>
<b>Attended “Cultivating An Antiracist Mindset” Workshop</b> , <i>Four hour long workshop led by Dr. Candice Hargons on how to disrupt the effects of racism..</i>	<b>Summer 2020</b>
<b>Referee for Czechoslovak Mathematical Journal.</b>	<b>Summer 2020</b>
<b>Referee for Rocky Mountain Journal.</b>	<b>Spring 2020</b>
<b>Organized Monthly Lunch Discussions on Gender and Academia</b> , <i>University of Utah</i> .	<b>Fall 2018</b>
<b>AWM University of Utah Chapter Secretary</b> , <i>University of Utah</i> .	<b>2018-2019</b>
<b>Graduate Student Advisory Committee Student Social Life Committee Chair</b> , <i>University of Utah</i> .	<b>2016-2019</b>
<b>Attend CaMeW: Career Mentoring Workshop for Women</b> , <i>Mount Holyoke University</i> .	<b>2018</b>

## Awards

**The Allen Shields Award, *Outstanding Postdoctoral Teaching Award.*** **Spring 2022**

**NSF Research Training Grant RTG-1246989 Fellowship, *Approximately four geometry/topology students in the department receive RTG fellowships each academic year.*** **Fall 2016**

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**Mathematics Department Travel Award.** **Spring 2015**

## Undergraduate Research (Mentor)

**Lab of Geometry at Michigan, *University of Michigan, Ann Arbor, MI, Next semester, I will lead a Log(M) program. LoG(M) is a semester-long mathematics research and experience for undergraduates at the University of Michigan..*** **Winter 2023**

**Research Experience for Undergraduates, *University of Michigan, Ann Arbor, MI, With Janet Page and Daniel Smolkin, mentored three undergraduates with a project in commutative algebra.*** **Summer 2021**

## Undergraduate Research (Mentee)

**Research Experience for Undergraduates, *Grand Valley State University, Allendale, MI.*** **Summer 2011**

**Research Experience for Undergraduates, *California State University Channel Islands, Channel Islands, CA.*** **Summer 2012**

**Mentoring Through Critical Transition Points, *Texas A&M, College Station, TX.*** **Summer 2013**