

Dr. Barry Minemyer

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Work Experience

Commonwealth (formerly Bloomsburg) University

Associate Professor

Aug 2021 - present

Assistant Professor

Aug 2017 - Aug 2021

The Ohio State University

Ross Visiting Assistant Professor

Aug 2014 - Aug 2017

Alfred University

Assistant Professor

Aug 2013 - Aug 2014

Binghamton University

Graduate Teaching Assistant

Aug 2007 - Aug 2013

Education

Doctor of Philosophy, Mathematical Sciences

Aug 2013

State University of New York at Binghamton, Binghamton NY

Thesis Title: Isometric Embeddings of Polyhedra

Master of Arts, Mathematical Sciences

May 2009

State University of New York at Binghamton, Binghamton NY

Bachelor of Science, Mathematics with application in Finance

May 2007

Pennsylvania State University at Altoona, Altoona PA

Grants, Honors, and Memberships

- Co-PI on an NSF S-STEM Grant (DUE 2322581) July 2023 - present
- Member of Phi Kappa Phi National Honor Society April 2022
- Miller Distinguished Professor of Good Works Faculty Fellow Aug 2021 - July 2024
- BU Provost's Award for Excellence in Research/Scholarly Activity April 2020
- College of Science and Technology Faculty Teaching Award Feb 2020
- 2016 AMS-Simons Travel Grant July 2016 - July 2019
- 2014 Project NExT fellow (gold14 dot) Aug 2014 - Aug 2015
- Member of the American Mathematical Society
- Member of the Mathematical Association of America
- Member of the National College Athlete Honor Society

List of Publications

15. *Hyperplane complements in hyperbolic products* (with H. Cho and J.F. Lafont), in preparation.
14. *High dimensional hyperbolic Coxeter groups that virtually fiber* (with J.F. Lafont, G. Sorcar, M. Stover, and J. Wells), in preparation.
13. *Curvature operators on Kähler manifolds*, submitted for publication, arXiv: 2401.17101v1.
12. *Kähler manifolds with an almost $1/4$ -pinched metric*, submitted for publication, arXiv: 2307.15550v2.
11. *Warped product metrics on hyperbolic and complex hyperbolic manifolds*, to appear in *Algebr. Geom. Topol.*
10. *Synthetic geometry in hyperbolic simplices* (with A. Clickard), *Involve, a Journal of Mathematics*, **15-5** (2022), 885-906.
9. *On the isometric embedding problem for length metric spaces*, *J. Topol. Anal.*, **13** No. 4 (2021), 889-932.
8. *Negatively curved codimension one distributions*, *Topology Proc.*, **56** (2020), 111-124.
7. *Filling triangulated surfaces* (with R Kowalick and JF Lafont), *Geom. Dedicata*, **202** (2019), 373-386.
6. *Real hyperbolic hyperplane complements in the complex hyperbolic plane*, *Adv. Math.* **338** (2018), 1038-1076.
5. *Intrinsic geometry of a Euclidean simplex*. In N. Broaddus, M. Davis, J-F. Lafont, and I. J. Ortiz (Eds.) "Topological Methods in Group Theory" (London Mathematical Society Lecture Note Series **451** 135-143 (2018)). Cambridge: Cambridge University Press. ISBN: 9781108437622.
4. *Simplicial isometric embeddings of polyhedra*, *Mosc. Math. J.*, **17** (2017) no. 1, 79-95.
3. *Approximating continuous maps by isometries*, *New York J. Math.*, **22** (2016), 741-753.
2. *Isometric embeddings of pro-Euclidean spaces*, *Anal. Geom. Metr. Spaces*, **3** (2015), 317-324.
1. *Isometric embeddings of polyhedra into Euclidean space*, *J. Topol. Anal.*, **7** (2015), no. 4, 677-692.
0. *Isometric embeddings of polyhedra*, Ph. D. Thesis, Binghamton University.

Research Presentations

2024

- AMS Eastern Sectional Meetings at Albany University Oct 2024
- Commonwealth University Mathematics Seminar Apr 2024
- Penn State Altoona Math Department Colloquium Mar 2024
- University of Utah Max Dehn Seminar Mar 2024
- STDC at UNC Charlotte Mar 2024

2023

- Michigan State University Topology Seminar Sept 2023
- Innovative Pedagogy Conference at Oberlin College July 2023

2019

- Juniata College Undergraduate Colloquium Sept 2019
- STDC at the University of Alabama at Birmingham Mar 2019
- Joint Mathematics Meetings in Baltimore Jan 2019

2018

- Temple University Geometry Seminar Dec 2018
- Conference of the Academy at Bloomsburg University Aug 2018
- AMS Central Sectional Meetings at The Ohio State University Mar 2018

2017

- Bloomsburg University MADS Seminar Nov 2017
- Joint Mathematics Meetings in Atlanta Jan 2017

2016

- Michigan State University Topology Seminar Dec 2016
- The Ohio State University Topology Seminar Nov 2016
- University of Illinois at Urbana-Champaign Geometry Seminar Nov 2016
- Wesleyan University Colloquium Oct 2016
- Duquesne University Undergraduate Colloquium Sept 2016
- Ohio State University (for the Ross Mathematics Program) July 2016
- Binghamton University (sequence of three talks) May 2016
- STDC at Baylor University Mar 2016
- University of Dayton Colloquium Feb 2016

2015

- Ohio State University Topology Seminar Oct 2015
- The University of Pittsburgh Geometry and Topology Seminar Oct 2015
- Fall MAA Ohio Section Meeting at Capital University Oct 2015
- STDC at Bowling Green State University May 2015
- Spring MAA Allegheny Mountain Section Meeting at W&J Apr 2015
- Penn State Altoona Topology Seminar Mar 2015
- Penn State University Geometry Seminar Mar 2015
- AMS Central Sectional Meeting at Michigan State University Mar 2015

2014

- Ohio State University Geometric Group Theory Seminar Nov 2014
- University of Chicago Geometry and Topology Seminar May 2014
- Binghamton University Topology Seminar Feb 2014
- Joint Mathematics Meetings in Baltimore Jan 2014

2013

- Binghamton University Graduate Conference Nov 2013
- Workshop in Geometric Topology at Calvin College June 2013
- The Ohio State University Geometric Group Theory Seminar Feb 2013

2012

- Penn State University Geometry Seminar Dec 2012
- Penn State Altoona Topology Seminar Nov 2012
- Binghamton University Graduate Conference Nov 2012
- Fall MAA Seaway Section Meeting at Elmira College Oct 2012

Teaching Experience

Instructor of Undergraduates *Commonwealth/Bloomsburg University*

- Independent Study in Complex Analysis two semesters
- Independent Study in Advanced Linear Algebra one semester
- Independent Study in Differential Geometry two semesters
- Independent Study in Algebraic Topology two semesters
- Real Analysis two semesters
- Abstract Algebra one semester
- Linear Algebra one semester
- Calculus III many
- Calculus II many
- Calculus I many
- Essentials of Calculus many
- Precalculus many
- College Algebra many
- College Algebra with Recitation many
- Mathematical Thinking many
- Mathematical Thinking with Recitation two semesters

The Ohio State University

- Curves and Surfaces in \mathbb{R}^3 spg 2016
- Advanced Geometry fall 2016
- Seminar for future careers for math majors spg 2017, fall 2016
- Calculus II spg 2016, fall 2015
- Calculus I spg 2015, fall 2014

Alfred University

- Introduction to proof writing spg 2014
- Calculus III fall 2013
- Calculus II spg 2014
- General Education Mathematics fall 2013

Binghamton University

- Introduction to proof writing fall 2012
- Linear algebra spg 2011, fall 2010
- Differential equations sum 2012
- Calculus III sum 2011, sum 2010
- Calculus II spg 2010
- Calculus I fall 2009, spg 2009, fall 2008
- Business Calculus spg 2012, fall 2011
- Introductory statistics spg 2008, fall 2007

Other Relevant Employment

CollegeBoard ETS

- Reviewer for the SAT Jan 2020 - Dec 2020
- Grader for the AP Calculus Exam June 2018 - present
- Member of the AP Calculus Standard Setting Panel June 2017

Cornell University

- Online co-instructor for two summer classes July 2017 - Aug 2017

SSS at Binghamton University

- Taught one summer class for Student Support Services at Binghamton University July 2010

EOP at Binghamton University

- Taught one class each summer for the Educational Opportunity Program at Binghamton July 2008 and July 2009

Miscellaneous

Four year member of the Penn State Altoona Men's Basketball Team

- Named the 2006-2007 Penn State Altoona male student athlete of the year.
- Three year co-captain.
- Four year member of the AMCC Academic All-Conference Team
- Four year member (and two year president) of the Penn State Altoona Student Athlete Advisory Committee