

Tyler Bongers

CONTACT INFORMATION	Department of Mathematics Michigan State University 619 Red Cedar Road East Lansing, Michigan 48824 USA	+1(517)258-0237 charlesb@math.msu.edu http://www.math.msu.edu/~charlesb
RESEARCH INTERESTS	Quasiconformal maps, geometric measure theory, harmonic and complex analysis.	
EDUCATION	Michigan State University Ph.D., Mathematics, May 2018 (expected) Advisor: Ignacio Uriarte-Tuero Dissertation: Applications of Geometric Measure Theory to Complex and Quasiconformal Analysis Colorado State University - Pueblo B.S., Mathematics, May 2012 <ul style="list-style-type: none">• Summa cum laude, distinguished graduate in mathematics• Minor in computational mathematics Colorado State University - Pueblo B.S., Physics, May 2012 <ul style="list-style-type: none">• Summa cum laude, distinguished graduate in physics• Emphasis and minor in chemistry	
PUBLICATIONS	<i>Stretching and Rotation Sets of Quasiconformal Maps</i> , 2017; arXiv:1710.04341. Manuscript submitted for publication. <i>Geometric Bounds for Favard Length</i> , in preparation. <i>Improved Hölder Regularity of Quasiconformal Maps</i> , in preparation.	
CONFERENCE PRESENTATIONS	<i>Stretching and Rotation Sets of Quasiconformal Maps</i> , Contributed Talk, Second Northeastern Analysis Meeting, SUNY Albany (October 2017) <i>Stretching and Rotation Sets of Quasiconformal Maps</i> , Analysis Seminar, MSU (October 2017) <i>Stretching and Rotation Sets of Quasiconformal Maps</i> , Poster Presentation, 2017 Global Research Symposium - Geometry, Analysis and Probability at KIAS, Seoul, Korea (May 2017) Presentation of <i>The solution of the Kato problem for divergence form elliptic operators with Gaussian heat kernel bounds</i> by S. Hofmann, M. Lacey and A. McIntosh, Internet Analysis Seminar, GA Tech (July 2015) Presentation of <i>Rectifiable Sets and the Traveling Salesman Problem</i> by P. Jones, Internet Analysis Seminar, GA Tech (August 2014) <i>Optimal Transfer Orbits in 3-Dimensional Systems</i> , MAA Rocky Mountain Sectional Meeting (April 2012)	

Optimal Transfer Orbits in 3-Dimensional Systems, Pikes Peak Regional Undergraduate Mathematics Conference, Colorado College (February 2012)

On Constructible Sets, MAA Undergraduate Poster Session, 2012 Joint Mathematics Meetings, Boston. (January 2012)

TEACHING
EXPERIENCE

Michigan State University

2017 Fall Lecturer, MTH 299 (Transitions - introduction to proofs course for mathematics majors and minors)
2017 Spring Teaching Assistant, MTH 235 (Differential Equations)
2016 Fall Teaching Assistant, MTH 235 (Differential Equations)
2016 Spring Teaching Assistant, MTH 235 (Differential Equations)
2015 Fall Lecturer, MTH 202 (Elementary Geometry for Teachers)
2015 Summer Lecturer, MTH 234 (Calculus III)
2014 Fall Teaching Assistant, MTH 235 (Differential Equations)
2014 Summer Lecturer, MTH 132 (Calculus I)
2014 Spring Teaching Assistant, MTH 235 (Differential Equations)
2013 Fall Lecturer, MTH 124 (Survey of Calculus I)

OTHER TEACHING
AND MENTORING

Michigan State University

2017 Mentoring of Undergraduate Learning Assistants, Lyman Briggs College
2016–2017 Center for Instructional Mentoring, Lead Teaching Assistant
2016 Course and Curriculum Development for Differential Equations
2014–2017 Math Learning Center, Lead Teaching Assistant

HONORS AND
AWARDS

2017 Teaching Assistant Award for Excellence in Teaching
Michigan State University, Department of Mathematics
2015 Dissertation Continuation Fellowship
Michigan State University, College of Natural Sciences
2015 Teaching Assistant Award for Excellence in Teaching
Michigan State University, Department of Mathematics
2014 Paul and Wilma Dressel Endowed Scholarship
Michigan State University, Department of Mathematics
2012 Recruiting Fellowship
Michigan State University, College of Natural Sciences
2012 Outstanding Presentation, 2012 Joint Mathematics Meetings
MAA Undergraduate Student Poster Session

SERVICE

Organized the MSU Student Analysis and PDE Seminar, 2015-2017.

LANGUAGES AND
RELEVANT SKILLS

English (native speaker), Spanish (working knowledge)
Python, Matlab, L^AT_EX

REFERENCES

Ignacio Uriarte-Tuero, Ph.D. Advisor
Department of Mathematics, Michigan State University, ignacio@math.msu.edu
Eric Sawyer, Research Reference
Department of Mathematics, McMaster University, sawyer@mcmaster.ca

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Tsvetanka Sendova, Teaching Reference
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Russell Schwab, Teaching Reference
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