

Jonathan Meddaugh

Department of Mathematics | Baylor University
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Employment

Assistant Professor	2017-present
Department of Mathematics, Baylor University	
Marie Sk lodowska-Curie Fellow	2015-2017
School of Mathematics, University of Birmingham	
Postdoctoral Associate	2012-2015
Department of Mathematics, Baylor University	
Instructor	2011-2012
Department of Mathematics, South Louisiana Community College	

Education

Ph.D. in Mathematics	August 2011
Tulane University, Department of Mathematics, New Orleans, LA	
Thesis: <i>On Components and Continuum Components of Covering Spaces for Homogeneous Continua</i>	
Advisor: James T. Rogers, Jr.	
B.S. in Mathematics, <i>Summa Cum Laude</i>	May 2004
Baylor University, College of Arts and Science, Waco, TX	

Published Papers

- [1] C. Good and J. Meddaugh. Shifts of finite type as fundamental objects in the theory of shadowing. *Inventiones Mathematicae* (2019), doi:10.1007/s00222-019-00936-8.
- [2] W. R. Brian, J. Meddaugh and B.E. Raines. Shadowing is generic on dendrites. *Discrete and Continuous Dynamical Systems Series S*, **12** (2019), no.8, 2211-2220.
- [3] J. Meddaugh and B.E. Raines. Weak specification and Baire space. *Journal of Mathematical Analysis and Applications* **479** (2019), no.1, 1355-1363.
- [4] C. Good and J. Meddaugh. Orbital shadowing, internal chain transitivity and ω -limit sets. *Ergodic Theory and Dynamical Systems* **38** (2018), no.1, 143-154
- [5] J. Meddaugh, B.E. Raines, and T. Tennant. Invariant measures on multi-valued functions. *Journal of Mathematical Analysis and Applications* **456** (2017), no. 1, 616-627.
- [6] W. R. Brian, J. Meddaugh and B.E. Raines. Chain transitivity and variations of the shadowing property. *Ergodic Theory and Dynamical Systems* **35** (2015), no. 7, 2044-2052.
- [7] A. D. Barwell, J. Meddaugh and B. E. Raines. Shadowing and ω -limit sets of circular Julia sets. *Ergodic Theory and Dynamical Systems* **35** (2015), no. 4, 1045-1055.
- [8] J.P. Kelly and J. Meddaugh. Convergence of sequences of inverse limits. *Topology and its Applications* **184** (2015), 29-40.
- [9] A. Boyarksy, P. Eslami, P. Góra, Z. Li, J. Meddaugh and B. E. Raines. Chaos for successive maxima map implies chaos for the original map. *Nonlinear Dynamics* **79** (2015), no. 3, 2165-2175.
- [10] J. Meddaugh and B. E. Raines. The structure of limit sets for \mathbb{Z}^d actions. *Discrete and Continuous Dynamical Systems* **37** (2014), no. 11, 4765-4780.
- [11] J. Meddaugh and B. E. Raines. Shadowing and internal chain transitivity. *Fundamenta Mathematicae* **222** (2013), no. 3, 279-287.
- [12] J. P. Kelly and J. Meddaugh. Indecomposability in inverse limits with set-valued functions. *Topology and its Applications* **160** (2013), no. 13, 1720-1731.
- [13] C. P. Curry, J. C. Mayer, J. Meddaugh and J. T. Rogers, Jr.. Any counterexample to the Makienko conjecture is an indecomposable continuum. *Ergodic Theory and Dynamical Systems* **29** (2009), no. 3, 875-883.
- [14] J. Meddaugh. Embedding one-dimensional continua into $T \times I$. *Topology and its Applications* **153** (2007), no. 18, 3519-3527.

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Submitted Publications:

- [1] K. Binder and J. Meddaugh. Limit sets and internal transitivity in free group actions.
[2] J. Meddaugh. On genericity of shadowing in one-dimensional continua.

Grant Awards

- [1] European Commission H2020 Marie Sk lodowska-Curie Action Incoming Fellowship 2015-2017
Research Grant for *Shadowing, Omega Limit Sets and Internal Chain Transitivity in Dynamical Systems*. Grant value €183,000

Presentations

- 2020 Joint Mathematics Meetings, Denver January 2020
Invited Talk: Internal Chain Transitivity and ω -limit sets in Baire space.
- 53rd Spring Topology and Dynamics Conference, University of Alabama-Birmingham March 2019
Semi-Plenary Talk: Applications of Inverse Limits of Dynamical Systems.
- 33rd Summer Conference on Topology and its Applications, Western Kentucky University July 2018
Invited Talk: Shadowing in one-dimensional continua.
- Birmingham Popular Maths Lecture Series March 2017
Invited Talk: Origami and Mathematics.
- 51st Spring Topology and Dynamical Systems Conference, New Jersey City University March 2017
Invited Talk: Shifts of finite type as fundamental objects in the theory of shadowing
- Workshop on Topology in Dynamics, University of Leicester April 2017
Invited Talk: Shifts of finite type and the general theory of shadowing
- Oxford Mathematical Institute's Analytic Topology Seminar October 2016
Seminar Talk: On shadowing in compact dynamical systems.
- University of Birmingham Analysis Seminar October 2016
Seminar Talk: On characterizing shadowing in dynamical systems.
- 31st Summer Conference on Topology and its Applications, University of Leicester August 2016
Invited Talk: Variants of shadowing and characterizations of ω -limit sets
- 11th AIMS Conference on Dynamical Systems, Differential Equations and Applications July 2016
Invited Talk: Inverse limits and shadowing
- 2015 Joint Mathematics Meetings, San Antonio January 2015
Invited Talk: Shadowing, ω -limit sets and internal chain transitivity
- 29th Summer Conference on Topology and its Applications July 2014
Semi-Plenary Talk: Shadowing in Dendrites.
- 10th AIMS Conference on Dynamical Systems, Differential Equations and Applications July 2014
Invited Talk: Chain transitivity and variations of the shadowing property.
- 17th Galway Topology Colloquium, University of Birmingham June 2014
Plenary Talk: Shadowing in Dynamical Systems.
- 48th Annual Spring Topology and Dynamics Conference, University of Richmond March 2014
Invited Talk: The full projection property for set-valued maps on the interval.
- 28th Summer Conference on Topology and its Applications, Nipissing University July 2013
Invited Talk: Shadowing and internal chain transitivity.
- 44th Annual Spring Topology and Dynamics Conference, Mississippi State University March 2010
Invited Talk: Probability measures on the limit spaces of upper semicontinuous maps.
- 41st Spring Topology and Dynamics Conference, University of Missouri-Rolla March 2007
Invited Talk: Embedding one-dimensional continua into the product of a simple triod and an arc.
- Annual Meeting of the Texas Section of the MAA, University of Texas at Arlington April 2005
Contributed Talk: Embedding 1-dimensional Continua in the Book of Three Pages.

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Professional Activities

Mathematics Graduate Committee Member	2018-present
Invitation to Excellence: Math Department Representative	2018
Topology and Dynamics Seminar Organizer, Baylor University	2017-present
Special Session Organizer, Summer Conference on Topology and its Applications	2017
Doctoral Thesis Examiner: Mate Puljiz, University of Birmingham	2016
Special Session Co-organizer, 50th Spring Topology and Dynamics Conference	2016
Doctoral Thesis External Examiner: Michael Lockyer, University of Auckland	2014
Topology and Dynamics Seminar Organizer, Baylor University	2012-2015
Phi Theta Kappa Faculty Advisor, South Louisiana Community College	2011-2012

Honors and Awards:

Baylor Rising Star	2018
VIGRE Fellowship, Tulane University	2005-2009
Outstanding Performance on Qualifying Exams	April 2007
Phi Beta Kappa	May 2004