

Dr. Nicholas E. Long

Stephen F. Austin State University
Department of Mathematics and Statistics
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Research Interests	Symbolic Dynamics, Ergodic Theory, Algebraic Dynamics, and K-Theory.	
Education	Ph. D., Mathematics, University of Maryland Dissertation: Involutions of Shifts of Finite Type Advisor: M. Michael Boyle	May 2008
	B.S., Mathematics	May 2002
	B.S., Physics Summa Cum Laude, North Carolina State University	May 2002
Publications	<i>Mixing Shifts of Finite Type with Non-Elementary Surjective Dimension Representations</i> , Acta Appl. Math. 126 (2013), 277–295. <i>Fixed Point Shifts of Inert Involutions</i> , Discrete and Continuous Dynamical Systems, 25 (2009), no. 4 1297-1318. <i>Involutions of Shifts of Finite Type: Fixed Point Shifts, Orbit Quotients, and the Dimension Representation</i> , Ph.D Thesis University of Maryland (2008). <i>Dynamical Systems Inset</i> , SciDAC Review Issue 3 Spring 2007 p. 48 <i>Strictly Order n Automorphisms of 1-Sided Shifts of Finite Type</i> , In preparation. <i>Flip Commuting Maps of the 2-shift</i> , In preparation. <i>Embedding Finite Group Actions in Mixing Shifts of Finite Type</i> , In preparation.	
Mathematical Activities and Talks	Sam Houston State University <i>Flipping the Bits in Digital Data</i>	October 2013
	Presentation at Joint Mathematics Meetings AMS Session on Dynamical Systems: <i>On Flip Commuting Maps</i>	January 2013
	University of Houston Dynamical Systems Seminar <i>On Flip Commuting Maps</i>	November 2012
	University of Texas at Tyler Mathematics REU <i>Chaos from Simplicity</i>	July 2012
	College of Math and Sciences Research Seminar, SFASU <i>Chaos from Simplicity</i>	January 2011
	SFA Mathematics Research/Reading Group – Organizer/Participant <i>Combinatorics</i>	Fall 2011

Curriculum Vitae

Nicholas Long

<i>Fuzzy Sets</i>	2010-2011
<i>Linearity, Symmetry, and Prediction in the Hydrogen Atom</i>	2009-2010
University of Texas at Tyler Mathematics Faculty Colloquium <i>An Introduction to Symbolic Dynamics</i>	Spring 2010
Texas Sectional Meeting of MAA: Project NExT Session <i>Symbolic Dynamics and Symmetries.</i>	Spring 2010
Dynamical Systems Seminar BYU	October 2009
R. W. Yeagy Colloquium Speaker , SFASU	
• <i>Symbolic Dynamics: Fixed Point Sets, Factor Maps, and Embeddings 2008</i>	
• <i>An Introduction to Dynamical Systems</i>	October 2008
• <i>An Introduction to Symbolic Dynamics</i>	October 2008
• <i>The Automorphism Group of Mixing Shifts of Finite Type</i>	November 2008
• <i>Necessity of Wavefunctions</i>	October 2009
• <i>Perelman's Million Dollar Idea</i>	February 2011
• <i>The Shape of Things</i>	April 2013
Presentation at Joint Mathematics Meetings AMS Session on Dynamical Systems: <i>Fixed Point Shifts of Inert Involutions</i>	January 2009
Presentation at Joint Mathematics Meetings AMS Session on Dynamical Systems: <i>Fixed Point Sets of Finite Order Automorphisms on Mixing Shifts of Finite Type</i>	January 2008
Student Dynamics Seminar, University of Maryland Co-founder and organizer Series of talks on fixed point sets of shifts of finite type.	2007-2008
Introduction to K-Theory, VIGRE Research Interaction Team, University of Maryland.	Spring 2006
REU Site: Mathematics REU at SFA <i>Submitted to NSF August 2013</i>	
Faculty Research Engagement Grant –Internal SFA Preparation of REU Proposal FREG Proposal Guidelines and Evaluation	Summer 2013 Summer 2012
Faculty Research Grant –Internal SFA Framework for Surjective Dimension Representations An Examination of Even Shifts	Summer 2014 Summer 2012
Texas Undergraduate Mathematics Conference Funded by MAA through the RUMC	2011-2013
National Dissemination of the LURE Model	2010

Grants

Not Funded by NSF but rated as "Highly Recommended for Funding"