

CURRICULUM VITAE

Xiaoxue H. Li

xli@ehc.edu

Office address:

Department of Mathematics/Miller 220
Emory & Henry College
Emory, VA 24327
276-944-6937(O)

EDUCATION

Lehigh University, Bethlehem, PA

- Ph.D. Mathematics. Dissertation title: *Some Properties of the $v1$ -periodic Spectra Associated to Exceptional Lie Groups*. Advisor: Donald M. Davis. May 2007.
- M.S. Mathematics, May 2003.

Southwest University, Chongqing, China

- B.S. Mathematics, July 1987

Academic Positions

Emory & Henry College

Associate Professor, Department of Mathematics, Spring 2013-present
Assistant Professor, Department of Mathematics, Fall 2007- Fall 2013

Lehigh University

Teaching Assistant, Department of Mathematics, Fall 2001-Spring 2007.
Instructor for Calculus I, Part B, Department of Mathematics, Spring 2005.
Instructor for Calculus I, Summer 2005.
Official tutor for various Calculus and Statistics courses, Lehigh University Learning Center for Math & Writing, Spring, 2003 and 2006.

Guizhou Teaching College, Guizhou Province, China

Assistant Professor, Department of Mathematics, Fall 1992- Fall 2000.

The Open University of China, Guizhou Province Branch, China

Instructor of Mathematics, 1987 – 1992.

RESEARCH

Interests:

Algebraic Topology, Homotopy Theory, Application of Topology to Biology, Projective Geometry, Euclidean Geometry, and Mathematical modeling.

Publications:

- *Proof Without Words: Monotonicity of $(\sin x)/x$ on $(0, \pi/2)$ and $(\tan x)/x$ on $(0, \pi/2)$* , The College Mathematics Journal, Vol. 44, No. 5 (November 2013), p. 408 and p.420.
- *A Synthetic Approach to a USAMO Problem*, Completed, not accepted yet.
- *Interpretations of some projective theorems in Euclidean Space*, co-authored with Ashley Nelson, in progress.
- *Projective Geometry -Visualizing Proofs & Interpretations in Euclidean Space*, Abstracts of Papers Presented at the MathFest, the Mathematical Association of America, (2010), p35
- *Exponent and Cell Structure of the $v1$ -periodic Spectra Associated to Exceptional Lie Groups*. Boletin Sociedad Matematicas Mexicana. Vol. 15, No. 2, (2009), p201-218
- *Some properties of the $v1$ -periodic Spectra Associated to Exceptional Lie Groups*. Abstracts of Papers Presented to the American Mathematical Society. Volume **30**, Number 1, Issue 155, (2009), p186

- *An Example of Applying Projective Geometry to Euclidean Geometry.* Bulletin of Mathematics, Chinese Mathematical Society & Beijing Normal University, China, **9** (1999), p39-40
- *An Application of Polar Coordinates.* Bulletin of Mathematics, Chinese Mathematical Society & Beijing Normal University, China, **9** (1998), p31-33
- *A Note (Correction of) on the Graph of a Function.* Mathematics Tongxun, China, **8** (1998), p19-20
- *Simplification of a 'Zu-ChongZhi Cup' Math Contest Problem.* Mathematics Teachers, China, **2** (1998), p45-46
- *Geometric Significance of an Inequality and Its Simple Proof.* Hebei Sciences Teaching and Research, China, **4** (1995) p11-13
- *An Application in Projective Geometry.* Bulletin of Mathematics, Chinese Mathematical Society & Beijing Normal University, China, **10** (1994), p23-25

Presentations

- *An Exponential Equation and its Generalizations*, Mathematics Department Seminar, EHC, Sep 4, 2012.
- *Projective Geometry -Visualizing Proofs & Interpretations in Euclidean Space*, contributed paper session *Geometry Topics That Engage Students*, MathFest, the Annual MAA summer meeting, Pittsburgh, PA, August 5-7, 2010.
- *Some properties of the $v1$ -periodic spectra associated to exceptional Lie groups*, Special Session *Homotopy Theory and Higher Categories*, AMS-MAA Joint National Meeting, Washington DC, January 2009. Invited.
- *Building up the $v1$ -periodic spectrum*, Lehigh Mathematics Graduate Student Colloquium, September 2006.
- *Duality in Projective plane*, Lehigh Mathematics Graduate Student Colloquium, April 2006.
- *Duality in Planar Projective Geometry*, Lehigh University Proseminar, March 2004.

Undergraduate Research project directed

- *Generalizing the relationships between bases and exponents across n dimensions.* Isaac Short, *Ledford Scholar poster presentation*, ACA Annual Student Summit XVI, Knoxville, TN, October 24-26, 2013.
- *Interpretations of some projective theorems in Euclidean Space*, Ashley Nelson, *Ledford Scholar poster presentation*, ACA Annual Student Summit, Abingdon, VA, October 23, 2010.
- *Interpretations of some projective theorems in Euclidean Space*, Ashley Nelson, MathFest, Annual MAA summer meeting, Pittsburgh, PA, August 5-7, 2010.
- *The rearranging of an infinite series.* William Archer, The 4th Annual Student Research Symposium, Emory & Henry College & University of Virginia at Wise, VA, April 9, 2010.
- *Desargues' Theorem - Physical Models and Interpretations in Euclidean Space.* Ashley Nelson. Posters Session. The Fourth Annual Undergraduate Mathematics Conference, University of Tennessee, Knoxville, TN, April 10, 2010.
- *The rearranging of an infinite series.* William Archer, Sciencefest, Emory & Henry College, VA, April 17, 2010.
- *Desargues' Theorem - Physical Models and Interpretations in Euclidean Space.* Samantha Baker, Hollanda Bowman, Kandis Hall, Ashley Nelson, Jessica Ogle, Sarah Thompson. Sciencefest, Emory & Henry College, VA, April 4, 2009.
- *Desargues' Theorem - Physical Models and Interpretations in Euclidean Space.* Kandis Hall, Jessica Ogle, the 3rd Annual Student Research Symposium, University of Virginia at Wise, VA, April 17, 2009.

GRANTS AND AWARDS

- *Appalachian College Association (A.C.A) Faculty Fellowship*, January 2014.

- *Faculty Summer Research Award*, Emory & Henry College, May 2013.
- *Travel Grants* to the Annual MAA summer meeting, MathFest, *Mellon Fund*, Emory & Henry College, August 2010.
- *Summer Starter Grants*, Emory & Henry College, March 2010.
- *Travel Grants* to Joint AMS-MAA National Conference, *Mellon Fund*, Emory & Henry College, January 2009.
- *Summer Starter Grants*, Emory & Henry College, March 2008.
- *Travel Grants*, Mathematics Department, Lehigh University. January 2007.
- *Guizhou Education Commission Scholarship*, Guizhou Province, China, 2000.
- *Excellent Faculty Award*, Department of Mathematics, Guizhou Teaching College, December 2000.

ACADEMIC SERVICE

- Chair, Mathematics Department, the summer and fall of 2011.
- Reviewer/Judge and moderator, the sixth Undergraduate Research Symposium hosted by UVA-Wise and Emory & Henry, UVA-Wise, March 2012.
 - Evaluated submitted abstracts of Sciences and Social Sciences.
 - Moderated one of the concurrent paper sessions of the Symposium at UVA-Wise.
- Mathematics department:
 - Academic Open House – organizing, together with my colleagues the Mathematics Department open house.
 - A member of the search committee in searching for two Assistant Professors in mathematics. Spring 2008 to spring 2014.
- Natural Science Division: helped to organize the division open house by preparing a comprehensive handout which provides briefly the schedule and activities of each participating department or program. Oct 2009 and 2010.
- Quantitative Literacy at EHC:
 - Serving on the QL Implementation Committee. 2010 – present.
 - Joining my colleagues Mark Hainsworth, John Iskra, and Robert Pour in providing a three-day QL workshop for faculty members who teach Transitions I courses. I spoke on *spatial reasoning and QL* at 2010's workshop. EHC, May 5-7, 2010.
 - Joining Mark Hainsworth, John Iskra, and Aris Winger in providing the QL workshop to faculty members who teach Transitions I courses. May 2009.
 - Helping administer the Mathematics Placement Test in each New Student Orientation. 2009- present.
 - Attending the ACA's Quantitative Literacy Symposium at EHC. Constructing syllabus for the developmental mathematics course at EHC. May 2009.
- Academic Advisor, 2008-present.
- College and community services:
 - Serving on the Faculty Governance Committee (Aug 2012 - present).
 - Serving on the Admissions Committee (Sep 2009 - 2012).
 - Serving on the BLB Child Development Center Advisory Board Committee (Nov 2009-May 2011).
 - Serving on the Honors Advisory Committee (Dec 2009 - present).
 - Serving as a faculty mentor for the Mathematics Club (Fall 2010- Spring 2011).
 - Serving as a faculty mentor for the women's soccer team (2009 - present).
 - Serving as an Assistant Coach in the Highlands Soccer Club Recreation Program in Washington County, VA, (Fall 2012).
 - Speaking in Dr. Julia Wilson's class *Marriage and Family*. EHC, October 14, 2011.

- Participating in the volunteer project of building a shade shelter for BLB Child Development Center, May 21, 2011.
 - Teaching Chinese in the BLB Child Development Center, the fall and summer of 2011.
 - Teaching two mathematics classes in the EHC Summer Scholars Institution, July 2010.
 - Participating in Academic Convocation, Get on Board Day/Club Fair, EHC Family Weekend, E&H Holiday Dinner, Martin Luther King Day, Sciencefest, Math club activities, etc.
 - Visit Day – serving as the representative of the Mathematics Department. 2009, 2010, 2013.
 - Interviewing students in one of the panels for the incoming class of the College Honors Program, Spring, 2010 - 2014.
 - Viewing applications for the In Course Honors Program. 2010-2012
 - Speaking in Dr. Ed Davis' class *Cultural Geography* about culture and geography in China, E&H, Fall 2007.
- Lehigh University
 - Lehigh University grader, summer 2002-2006.
 - Volunteer at the Mathematics Graduate students Orientation Day, Lehigh University, 2003-2004.
 - A TA trainer for the new Teaching Assistants. Department of Mathematics, Lehigh University, 2003-2005.
 - Volunteer proctor and grader for the annual Lehigh University / AT&T High School Math Contest, 2002-2006.
 - Official mentor for the incoming Teaching Assistants. Department of Mathematics, Lehigh University, 2002-2006.
 - Volunteer at the Orientation for International students. OISS, Lehigh University, August 2002.

COMPUTER EXPERIENCE

- LATEX, Excel, Minitab, Maple, Blackboard, Angel, MyMathLab, Mathematica, GeoGebra.

MEMBERSHIPS

- American Mathematical Society (AMS)
- Mathematical Association of America (MAA)
- Sigma Xi, the Scientific Research Society (elected)

MEETINGS ATTENDED

- ACA Summit XVI, Knoxville, TN, October 24-26, 2013.
- ACA Summit XIII, Abingdon, VA, October 22-23, 2010.
- Annual MAA summer meeting, MathFest, Pittsburgh, PA, August 5-7, 2010.
- The Fourth Annual Undergraduate Mathematics Conference, University of Tennessee, Knoxville, TN, April 10, 2010.
- The 4th Annual Student Research Symposium, Emory & Henry College & University of Virginia at Wise, VA, April 9, 2010.
- ACA Summit XII, October 15-17, 2009, Abingdon, VA.
- ACA's Quantitative Literacy Symposium, Emory, VA, May 2009.
- The 3rd Annual Student Research Symposium, University of Virginia at Wise, VA, April 2009.
- AMS-MAA Joint National Meeting, Washington DC, January 2009.
- MAA mini-course: Directing undergraduate research, Washington DC, January 2009.
- ACA's Quantitative Literacy Symposium, Emory, VA, May 2008

- Writing Proficiencies workshop, EHC, VA, May 2008.
- AMS-MAA Joint National Meeting, New Orleans, LU, January 2007.
- AMS Sectional Meeting, University of Delaware, DL, April 2005.
- Moravian College Student Mathematics Conference, February 2004.
- AMS Sectional Meeting, Rider University, NJ, April 2004.
- Geometry and Topology Conference, Lehigh University, PA, June 2001-2006.