

Neil R Hoffman

CONTACT INFORMATION	Assistant Professor of Mathematics Oklahoma State University <i>WWW:</i> http://math.okstate.edu/people/nhoffman <i>E-mail:</i> neil.r.hoffman@math.okstate.edu Citizenship: USA	Oklahoma State University Stillwater, Oklahoma <i>Office:</i> 405-744-7791 <i>skype</i> neil.r.hoffman
RESEARCH INTERESTS	My primary research interests are in low dimensional topology. More specifically, I consider problems involving triangulations of 3-manifolds, hyperbolic geometry, and knot theory. Currently, I am working on problems related to 3-manifold recognition and rigorous computation of 3-manifold invariants.	
EMPLOYMENT	Assistant Professor, Oklahoma State University, July 2016-present. Research fellow, University of Melbourne, September 2013-June 2016. Guest Researcher, Max Planck Institute for Mathematics, September 2012-August 2013. Visiting Assistant Professor, Boston College, July 2011-June 2012.	
INSTITUTES	ICERM-Fall Semester Program: Low-dimensional Topology, Geometry, and Dynamics, October, 2013.	
EDUCATION	Ph.D. Mathematics, University of Texas, May 2011. Advisor: Alan Reid DISSERTATION: Properties of commensurability classes of hyperbolic knot complements B.A. Mathematics with Honors, Williams College, 2004. Thesis Advisor: Frank Morgan Budapest Semesters in Mathematics, Fall 2002.	
GRANT AND AWARDS	OSU Student Veterans Organization - Faculty Member of the Year 2017. Simons Foundation Grant - Algorithmic recognition of 3-manifolds and tangles - Sep 2017 - Aug 2022. Department Fellowship - Spring 2011 Mathematics Teaching Excellence Award - Fall 2010 Research Training Grant Summer Support 2010 Research Training Grant Summer Support 2009 Mathematical Association of America Committee on Undergraduate Research Talk Award - MathFest 2003	

CONFERENCES
ORGANIZED

Interactions between topological recursion, modularity, quantum invariants, and low-dimensional topology, Creswick, Australia, 28 Nov- 23 Dec 2016. *together with Norm Do, Craig Hodgson, Motohico Mulase, and Paul Norbury* secured funding with ASMI and AustMS. <http://ms.unimelb.edu.au/~nhoffman/Interactions-TR-LDT-2016.html>.

Redbud Triangulations Conference, Stillwater, OK, November 18-20, 2016, *together with Henry Segerman and Bus Jaco*. <https://math.okstate.edu/research/conferences/381-fall-2016-redbud-triangulations-conference>.

SUPERVISED
RESEARCH

(together with Craig Hodgson) James Cliff. “Scissor congruence for manifolds in the cusped and closed censuses of hyperbolic 3-manifolds”

(together with Craig Hodgson) Dadd, Blake, and Aochen Duan. “Constructing Infinitely Many Geometric Triangulations Of The Figure Eight Knot Complement.” arXiv preprint arXiv:1508.04942 To appear in Proceedings of the Amer. Math. Soc.

(together with Craig Hodgson) Emma Kong and Curtis Mustgrave-Evans. “Maximal equal area cusp packings of punctured spheres”

TEACHING

Fall 2017 - Calculus I (Oklahoma State)

Spring 2017- Intro. to Topology (Oklahoma State)

Fall 2016 - Calculus I (Oklahoma State)

Spring 2014 - Linear Algebra (Uni. Melbourne)

Spring 2012 - Instructor Linear Algebra and Ideas in Math (Boston College)

Fall 2011 - Instructor Calculus I (Boston College)

January 2011-May 2011 Department Fellowship (Texas)

January 2010-December 2010 Coordinator of Saturday Morning Math Group (Texas)

Fall 2009 - Teaching Assistant 408K-CNS (Differential Calculus I) (Texas)

Fall 2008-Spring 2009 - Assistant Instructor 505G (Pre-calculus) (Texas)

Fall 2006-Spring 2008 - Supplemental Instructor 408D (Integral and Multi-variable calculus), 408M (Multi-variable calculus) (Texas)

Spring 2006 - Teaching Assistant - Moore Method Introduction to Topology (Texas)

Fall 2004-Fall 2005 - Teaching Assistant 408D (Integral and Multi-variable calculus) (Texas)

SOFTWARE

Proficient in Python and the more specialized software: Snappy, snap, orb, MAGMA, gap, and sage.