

# COMMITTEE RECOMMENDATION FORM

Clear Form

<http://grad.uic.edu>

Information should be typed online (except for signatures at bottom), and then printed

Name of Student Keaton Quinn UIN 655326776  
*For defense, type name exactly as it will appear on thesis/dissertation title page* *Nine-digit ID from I-Card*

Student's Graduate Program (e.g. History) Mathematics Program Code 20FS

Master's Thesis Defense\* ☐ Preliminary Examination ☐ EDD Doctorate Project Defense\* ☐ Doctoral Dissertation Defense\* ☒

Anticipated date of exam or defense (mm/dd/yyyy) 04/23/2020 Email of Student kquinn23@uic.edu

\* Thesis, doctoral project or dissertation title (must not exceed 105 characters in length including spaces):

## Limits of Foliations in Quasi-Fuchsian Manifolds

**REGULATORY ISSUES** Complete questions (1) - (4) for Master's or Doctoral Defense; complete only question (4) for Preliminary Examination.

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|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. Does the student's research involve human subjects?                                                                                                                                                                                                                                                        | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | 1. Approval # _____                                                                                                                                        |
| If yes, has the Institutional Review Board approved the proposal?                                                                                                                                                                                                                                             | Yes <input type="checkbox"/> | No <input type="checkbox"/>            |                                                                                                                                                            |
| 2. Does the student's research involve animals in any way?                                                                                                                                                                                                                                                    | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | 2. Approval # _____                                                                                                                                        |
| If yes, has the Animal Care Committee approved the proposal?                                                                                                                                                                                                                                                  | Yes <input type="checkbox"/> | No <input type="checkbox"/>            |                                                                                                                                                            |
| 3. Does the student's research involve recombinant DNA?                                                                                                                                                                                                                                                       | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | 3. Approval # _____                                                                                                                                        |
| If yes, has the Institutional Biosafety Committee approved the proposal?                                                                                                                                                                                                                                      | Yes <input type="checkbox"/> | No <input type="checkbox"/>            |                                                                                                                                                            |
| 4. Does the student have any financial, non-financial (including previous employment) affiliation, or romantic, sexual, or familial relationship with any member on the proposed committee outside of normal accepted academic activity, mentoring, and support? (If unsure a conflict exists, answer "Yes.") | Yes <input type="checkbox"/> | No <input checked="" type="checkbox"/> | 4. If "Yes," attach a statement specifying the nature, length, and time period of the relationship, and rationale for having that member on the committee. |
- See policy at: <http://grad.uic.edu/student-committee-conflict-interest-statement>

Graduate College policy requires the minimum membership of committees as follows:

	Total Number	Full Membership	Tenure Requirement	Outside Member**
Master's thesis defense	Three	One	One	Not required
Preliminary exam	Five***	Three	Two	Recommended, but optional
Professional doctorate project defense (EDD only)	Three***	One	Not required	Not required
Dissertation defense	Five***	Two	Two	One mandatory

\*\*Outside member is defined as outside of the program, although some programs may require outside of UIC

\*\*\*Chairperson must have full membership (not necessarily tenured)

We recommend that the following be approved as members of the committee for the student named above:

Name of Committee Member	Department of Committee Member
David Dumas	MSCS
Daniel Groves	MSCS
Julius Ross	MSCS
Laura Schaposnik	MSCS

Benson Farb

Dept. of Mathematics, U. Chicago

Name of outside member\*\* (type name on line above)  
curriculum vitae must be attached if not a member of Grad Coll faculty

Name of department (if UIC but outside of student's program), or,  
Name of institution, agency, etc. (if outside of UIC)

  
Advisor signature

David Dumas  
Print name

25 May 2020  
Date

Department head or director of graduate studies signature Print name

Date

Approved: ☐

Graduate College signature

Date

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## BIOGRAPHICAL SKETCH

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### Professional preparation

1989 B.S., Cornell University (Summa cum Laude, Phi Beta Kappa, Kieval prize).  
1994 PhD, Princeton University, advisor: W.P. Thurston.

### Appointments: University of Chicago

2001-	Professor
1999-2001	Assoc. Prof. (tenured)
1996-99	Asst. Prof.
1994-96	L.E. Dickson Instructor

### Selected awards and honors

Invited Speaker, International Congress of Mathematicians (Topology section), Seoul, 2014.  
Plenary Speaker, Joint AMS-MAA National Meeting, Baltimore, January 2014.

Fellow of the AMS, inaugural class 2012.

Special seminar series on work at Institute for Advanced Studies, Princeton, Dec. 2019.

Named Lectures: Minerva Lectures (Princeton, 2021), Ritt Lectures (Columbia), Perry Lectures Series (EIU), Jankowski Lecture (Poland), Cantrell Lectures (UGA), BMS Lectures (Berlin), Kieval Lectures (Humboldt), Distinguished Lecture Series (Utah), Wolff Lecture (Rice), Myhill Lectures (Buffalo), Boston College Distinguished Lectures, Spring Lecture Series (Arkansas), 3-lecture sole plenary speaker at 29th Workshop in Geometric Topology (Oregon State), etc.

Faculty Award for Excellence in Graduate Teaching (university-wide), Univ. of Chicago, 2002.

Other: AMS plenary (one hour) lecture, Toronto, 2000; NSF Career Award, 2000-5; Sloan Foundation Fellowship, 1999-2001; NSF Postdoctoral Fellowship, 1994-6.

### 10 Publications

1. Representation Stability, *Proceedings of the International Congress of Mathematicians*, Seoul 2014 Vol. II, 1173–1196.
2. FI-modules and stability for representations of symmetric groups (with T. Church and J. Ellenberg), *Duke Math. Jour.*, Vol. 164, No. 9, (2015), 1833–1910.
3. Representation theory and homological stability (with T. Church), *Advances in Math.*, Vol. 245 (2013), pp. 250–314.
4. FI-modules over Noetherian rings (with T. Church, J. Ellenberg, and R. Nagpal), *Geometry & Topology* 18–5 (2014), 2951–2984.
5. Topology and arithmetic of resultants, II: the resultant=1 hypersurface (with J. Wolfson, appendix by C. Cazanave), *Algebraic Geometry*, vol. 4, no. 1, 2017, pp. 337–352.
6. (BOOK) A Primer on Mapping Class Groups (with D. Margalit), 439 pp., Princeton Math. Series, Vol. 49, Princeton Univ. Press, 2012.
7. Isometries, rigidity and universal covers (with S. Weinberger), *Annals of Math*, Vol. 186,

## BIOGRAPHICAL SKETCH

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No.3, p.915-940 (2008).

8. The intrinsic asymmetry and inhomogeneity of Teichmüller space (with S. Weinberger), *Duke Math. Journal*, Vol. 155, No. 1, 91–103 (2010).

9. Commensurations of  $\text{Out}(F_n)$  (with Michael Handel), *Publ. Math. IHES.*, No. 105 (2007), 1–48.

10. Group actions and Helly's theorem, *Advances in Math*, Vol. 222, Issue 5, 1574–1588 (2009).

### Selected synergistic activities

PhD STUDENTS ADVISED (first job in parenthesis): Jennifer Taback (UC Berkeley), Ashley Reiter Ahlin (Vanderbilt, teaching), Dan Margalit (Utah), Kevin Wortman (Cornell/Yale), Angela Barnhill (Ohio State), Pallavi Dani (Univ. of Oklahoma), Karin Melnick (Yale), Steven Wang (Haverford), Alexandra Pettet (Stanford), Tullia Dymarz (Yale), Andy Putman (MIT), Anne Thomas (Cornell), Matt Day (Caltech), Justin Malestein (Temple), Hanna Bennet (Michigan), Khalid Bou-Rabee (Michigan), Jan Essert (joint w/ L. Kramer), Asaf Hadari (Yale), Tom Church (Stanford), Spencer Dowdall (UIUC), Tam Nguyen (Ohio State), Rita Jimenez Rolland (Northeastern), Kathryn Mann (Berkeley), Daniel Studenmund (Utah), Jennifer Wilson (Stanford), Wouter van Limbeek (Michigan), Bena Tshishiku (Harvard), Nicholas Salter (Harvard), Andrew Geng (industry), Weiyan Chen (Minnesota), Victoria Akin (Duke), Kevin Casto (UBC), Lei Chen (Caltech), Oishee Banerjee (Bonn), Nir Gadish (MIT). CURRENT: Reid Harris, Ben O'Connor, Claudio Gonzales, Ronno Das, Nat Mayer, Adan Pedrano, Ishan Banerjee, Soohyun Park, Chloe Avery.

SENIOR SCIENTIST for NSF Postdocs: K. Whyte, C. Connell, C. Hruska, P. Storm, N. Broaddus, B. Schmidt, D. McReynolds, A. Walker, A. Zimmer, M. Bergeron (current), N. Harman (current). P. Tosteson (current), Trevor Hyde (starting Fall 2020).

OTHER: Created/ran summer program for minority students (2010-present); AMS Comm. on Comm. (2012-16), Satter Prize comm. (2014-present, chair); Blumenthal Prize Comm.; Public Lectures; Athens GA, Humboldt CA, Edinburgh, Berlin; Chair, Diversity Committee of the Phys. Sciences Division at Univ. of Chicago (2010–16); Women in Science Committee, University of Chicago (2007-16); AMS Committee on Disabilities (2008–2011), AMS Committee on Meetings and Conferences (2010-2012).

EDITORIAL BOARDS: *Geometry and Topology* (2002–); *Journal of Topology and Analysis* (2009–); *Journal of Homotopy Theory and Related Structures* (2012–); *New York Journal of Mathematics* (2011–18); *Chicago Lectures in Mathematics* (2000–); Managing editor (with R. Zimmer), *Geometriae Dedicata* (1999-2004, honorary editor 2004–).