## PROMOTION RECOMMENDATION The University of Michigan College of Literature, Science, and the Arts

Alexander Wright, assistant professor of mathematics, College of Literature, Science, and the Arts, is recommended for promotion to associate professor of mathematics, with tenure, College of Literature, Science, and the Arts.

Academic I	Degrees:	
Ph.D.	2014	University of Chicago
B. Math	2008	University of Waterloo

Professional Record:

2019-present	Assistant Professor, Department of Mathematics, University of Michigan
2018-2019	Visiting Assistant Professor, Department of Mathematics, University of
	Michigan
2016-2018	Acting Assistant Professor, Department of Mathematics, Stanford
	University
2014–2015	Visiting Fellow, Department of Mathematics, Stanford University
2015-2015	Post-doctoral Fellow, Mathematical Sciences Research Institute

## Summary of Evaluations:

<u>Teaching:</u> Professor Wright has contributed to the mathematics curriculum through his instruction of upper-level undergraduate courses and graduate courses, for which he has received excellent student evaluations. Student evaluations gave him median scores ranging from 4.7 to 5.0 on the "excellent instructor" question. His contribution to the department's teaching mission, however, goes far beyond classroom instruction and includes the supervision of research teams that involve students from both levels. One team, consisting of three undergraduates and two graduate students and working in the "Lab of Geometry" program, wrote a computer program to produce pictures illustrating topics arising in Professor Wright's research. Professor Wright has also supervised three teams in the NSF's "Research Experiences for Undergraduates" (REU) program. These teams each consisted of an undergraduate, a graduate student, and a postdoc, so he was supervising nine people in these three projects. He has mentored researchers at all levels from undergraduate students to postdoctoral scholars, with excellent results.

<u>Research:</u> Professor Wright has done outstanding research in the area of mathematics called Teichmüller dynamics and more broadly in topics at the crossroads between geometry, topology, and dynamical systems. He has published in the very best mathematics journals and has won several prestigious awards, including Clay and Sloan Research Fellowships.

## Recent and Significant Publications:

(2020). "Totally geodesic submanifolds of Teichmüller space." *Journal of Differential Geometry*, *115*(3), 565-575.

- Chaika, J. and Wright, A. (2019). "A smooth mixing flow on a surface with non-degenerate fixed points." *Journal of the American Mathematical Society*, 32(1), 81-117.
- Eskin, A., McMullen, C., Mukamel, R., and Wright, A. (2020). "Billiards, quadrilaterals and moduli spaces." *Journal of the American Mathematical Society*, *33*(4), 1039-1086.
- Kahn, J. and Wright, A. (2021). "Nearly Fuchsian surface subgroups of finite covolume Kleinian Groups." *Duke Mathematical Journal*, 170(3), 503-573.

<u>Service:</u> In addition to substantial service in the Department of Mathematics—graduate admissions committee, doctoral committee, and personnel committee—Professor Wright has performed important service work for the mathematical community in general. This includes expository work; he is a sought-after lecturer for mini-courses in his field, and one of his expository articles won a prize from the American Mathematical Society. It also includes setting up electronic means for his research community to remain connected during the pandemic.

## External Reviewers:

Reviewer (A): "Without a doubt, Alex Wright has become a leader in his area. Wright's mastery of specific examples is important and impressive, while at the same time, he continues to develop important theory. I have only touched on a tiny portion of his research in this letter, but I hope it gives a sense of the strength of his research and of my overall positive opinion."

Reviewer (B): "Alex Wright's work has been really impressive since his first contributions... Many papers by Alex Wright are outstanding."

Reviewer (C): "I believe that [Professor Wright] is one of the very best mathematicians of his generation working in low dimensional geometry and dynamics. This tenure case is very strong and supported by overwhelming evidence. To illustrate this let me mention that a few years ago (while I was the chair of the hiring committee)...offered to [Professor Wright] the position of Full Professor (with tenure) which he turned down to join your department. At that time he had many other similar offers."

Reviewer (D): "In a very few years since his Ph.D. he has published an astonishingly large number of very fine, well written, and influential papers answering important questions and inspiring work of others. These papers have been published in the top journals in mathematics. He has published two papers in the *Annals of Math*, a paper in *Inventiones*, two papers in *Duke Journal*, and a paper in *Journal of AMS*. This is remarkable."

Reviewer (E): "Alex Wright is among the worlds [sic] absolutely best researchers in his peer group and I can only recommend to *grant tenure to Alex Wright* with my strongest possible support."

Reviewer (F): "He has changed the way we look at the question...He is doing this using a variety of deep insights, clever original arguments and a wide range of powerful tools from the various fields..."

Summary of Recommendation:

Professor Wright has made outstanding contributions to the field, acclaimed by external reviewers and published in top journals. He has achieved an excellent teaching record, both in classroom teaching and in supervision of research from undergraduate to post-doctoral level. He has performed worthy service work for his department and for the mathematics community. The Executive Committee of the College of Literature Science, and the Arts and I recommend that Assistant Professor Alexander Wright be promoted to the rank of associate professor of mathematics, with tenure, College of Literature, Science, and the Arts.

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Anne Curzan, Dean Geneva Smitherman Collegiate Professor of English Language and Literature, Linguistics, and Education Arthur F. Thurnau Professor College of Literature, Science, and the Arts

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