Chen-wei (Milton) Lin clin130@jhu.edu +1 443-467-6477 https://cwlin4916.github.io/Trees/

Mathematical Institute Andrew Wiles Building Radcliffe Observatory Quarter Woodstock Road Oxford OX2 6GG

Dear Members of the Appointment Committee,

I am writing to express my strong fit for the position, meeting each of the criteria outlined in the call.

Academic Background and Research Independence: I am nearing the completion of my Ph.D. in Mathematics at Johns Hopkins University, under the supervision of Professor David Gepner. My research primarily focuses on the Langlands program, higher category theory, and p-adic geometry, demonstrating my ability to work independently and produce research of the high standard, including joint work on a Casselman-Shalika formula in mixed characteristic settings, which extends Zhu's perfect geometry framework. I expect to graduate by May 2025.

Research Outputs and Publications: I have a strong record of work in comparison to my career stage. I have currently two papers on arxiv which are submitted to journals and expect to have at least one more completed project by the time I have graduate.

Future Research Plan: My proposed research plan aligns with and would further strengthen the Mathematical Institute's profile. I aim to advance Langlands research by exploring relative and metaplectic aspects with respected collaborators from institutions including the University of Tokyo and Johns Hopkins, with a broader scope in category theory and motivic aspects relevant to the Institute's goals.

Professional Engagement: I actively participate in the academic community, having presented at multiple research and learning seminars. My presentations have covered topics in K-theory, derived deformation theory, to trace formulas. I am committed to a mentorship role, as I am the host of the Directed Reading Program (a pair reading program for undergraduate and graduate students at Johns Hopkins) for 2 consecutive academic years and also a secondary supervisor of a graduate student at Johns Hopkins University.

Teaching and Communication Skills: I have extensive experience teaching and mentoring students in both formal and informal settings. As a lecturer and teaching assistant for courses such as Calculus and Graduate Algebra, I have honed my ability to convey complex

mathematical concepts effectively. My fluency in English, both written and spoken, ensures clear and effective communication. ¹

In summary, my academic background, record of publications, and teaching experience make me a suitable candidate for the position. I am enthusiastic about the prospect of contributing to your institution's research and educational missions.

Sincerely,

Chen-wei (Milton) Lin

 $^{^1\}mathrm{Here}$ is a link to my teaching statement, https://cwlin4916.github.io/Trees/Application/Postdoc/Teaching.pdf.