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December 1, 2024

Max Planck Institute for Mathematics in the Sciences Inselstr. 22 04103 Leipzig Germany

Dear Members of the Appointment Committee,

I am Chen-wei (Milton) Lin, a Ph.D. candidate in pure mathematics at Johns Hopkins University, focusing on arithmetic geometry, geometric Langlands, homotopy theory. Under the supervision of Professor David Gepner, I expect to complete my degree in May 2025.

During my final academic year, my research interests have expanded beyond my thesis work to include foundational aspects of machine learning. I have focused on applying categorical and algebraic techniques to better understand neural networks, leading to ongoing collaboration with Chris Hillar from Redwood Research. I am writing to apply for the MPI MiS postdoctoral research position, and have listed Professors Guido Montufar, Sayan Mukherjee, and Bernd Sturmfels as mentors of interests.

My cover letter, curriculum vitae, and list of publications are enclosed with this application. In addition, I have arranged for two research letters from mathematics professors — David Gepner (gepner@jhu.edu) and Yiannis Sakellaridis (sakellar@jhu.edu)— as well as one letter from a computer science professor, Daniel Khashabi (danielk@cs.jhu.edu).

Please let me know if there is anything else I can provide. Thank you in advance for your consideration.

Sincerely,

Chen-wei (Milton) Lin