

Department of Mathematics
City College of New York
160 Convent Avenue
New York, NY 10031

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To whom it may concern:

This letter is in support of a submission by Mr. William Li of the manuscript titled “Lebesgue Measure Preserving Thompson’s Monoid”. I am his MIT-PRIMES mentor for the 2020 calendar year.

In the paper Mr. Li investigates properties of a monoid consisting of piecewise linear maps of the unit interval so that the slopes are \pm integer multiples of 2 and that preserve the Lebesgue measure. Such monoid is modeled on Thompson’s group F . The properties investigated are dynamical and algebraic, including approximation, mixing, periodicity, entropy, decomposition, generators, and topological conjugacy. Much of the work is motivated by and extends results contained in Jozef Bobok and Serge Troubetzkoy’s paper titled “Typical properties of interval maps preserving the Lebesgue measure”, arXiv:1906.07558.

William did this work as a Delbarton High School student in New Jersey.

Serge Troubetzkoy from Institut de Mathematiques de Marseille could be a potential referee for this manuscript.

Sincerely,
Sergiy Merenkov

cc: Mr. William Li

