## THE UNIVERSITY OF ROCHESTER

DEPARTMENT OF MATHEMATICS
MATHEMATICAL SCIENCES BUILDING
ROCHESTER, NEW YORK 14627

Phone 716-275-4411

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Professor Richard Palais Department of Mathematics Brandeis University Waltham, MA 02154

Dear Dick,

This letter is to convey to you in concise form our impressions on the use of TEX and AMSTEX based on our implementation of two very different projects.

The first project was the setting of "Hecke Operators for  $\Gamma_G(N)$ ," a 26 page paper by Pizer, which involved fairly complicated formulae and constructions. Pizer spent three or four weeks on this, working mostly in the evenings. This included all the learning and experimentation to be expected when a new system is used for the first time on a self-taught basis.

The second project was much more modest in scope: a three-page announcement presented at the AMS Summer Research Institute, held from July 14 to August 2, 1980 at Kingston, Ontario. Working under rather intense time pressure, Emch, starting from scratch, managed to produce this paper in two days including one night spent on a first reading of Knuth's manual. It should be said that he benefitted from Pizer's guidance, on the spot availability, and experience with the system.

It is our conviction that the whole system, together with Knuth's manual, is an eminently usable tool in the hands of any mathematician, even one who would sit at a computer terminal for the first time. The task will be made even easier with the complete AMSTEX package.

It should be recognized that setting complicated alignments and displays (such as commutative diagrams for example) can be quite difficult, at least for novice users such as ourselves. However, as the goal of AMSTEX is to create "MACROS" that will allow one to easily set almost any construction that might appear in a mathematics paper, most of these difficulties should disappear when AMSTEX becomes fully operational.

In closing we should say that both of us are very pleased with the results of our first experiences with TEX and AMSTEX

and are quite proud of the typographical appearance of our respective papers. We now hope that our secretaries too will be seduced by the "Joy of TEX".

Sincerely,

Gérard G. Emch

Arnold K. Pizer

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P.S. Please feel free to use this letter for any propaganda purpose you might see fit.