

atic corrections. The weights here assigned are rather a rude approximation ; this is pardonable where the object is mainly to make sure of the existence and general direction of the proper motion. But when the purpose in view is to obtain the most probable values of the motions, the systematic corrections and the weights should be rather more strictly applied.

Lalande's zones, for example, usually deserve no more than about  $\frac{1}{10}$  of the weight of the Pulkova catalogue of 1855, while here we find  $\frac{1}{4}$  employed instead. But this secondary correction is, as above stated, here of quite subordinate importance.

T. H. SAFFORD.

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### NOTES

A REGULAR meeting of the NEW YORK MATHEMATICAL SOCIETY was held Saturday afternoon, November 5, at half-past three o'clock, the president in the chair. The following persons, having been duly nominated, and being recommended by the council, were elected to membership : Professor Cleveland Abbe, U. S. Weather Bureau ; Professor Henry S. White, Northwestern University ; Mr. Gardner Ladd Plumley, Home Life Insurance Company of New York. It was announced that the president and secretary had been made members of the international committee on the proposed joint memorial to Gauss and Weber at Göttingen. No formal papers having been announced, a general discussion upon mathematical topics was in order. Miss Williams made some remarks, in which she stated that Steiner's method of proving, that the circle has a greater area than any other plane figure having an equal perimeter, appeared to lack rigor, because he took for granted that a maximum exists, and the latter proposition had not been demonstrated. Edler has found a rigorous proof of this proposition relating to the circle ; but for the corresponding proposition with reference to the sphere, no rigorous proof by elementary geometrical methods seems to be known. Steiner himself objects to a similar method of proof, which Lhuilier applies to triangles. After stating his objection, Steiner gives a concise and rigorous proof of this proposition. When he goes on to the circle, he seems to forget his objection and to adopt a somewhat similar method. Most of the discussion which followed Miss Williams's remarks turned on this point. Dr. Fiske made some general remarks upon a recent paper\* treating of the mathematical theory of

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\* Mathematical Investigations in the Theory of Value and Prices, by Dr. Irving Fisher, Yale University. *Transactions of the Connecticut Academy*, vol. ix., July, 1892.