

## PREFACE.

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THE following pages were drawn up for the use of Students pursuing the higher Mathematical course in our Colleges and Universities. All the necessary formulæ for calculating transits of the planets and solar eclipses from the heliocentric elements, have been investigated in order to render the work as complete in itself as possible; and while I have endeavoured to simplify the computation, I have, at the same time, given as full an account of the various circumstances attending these phenomena, as is to be found in any of the ordinary works on Spherical and Practical Astronomy.

This is, I believe, the *first* work of the kind ever published in Canada, and therefore I hope it will tend to encourage, in this country at least, the study of the grandest and noblest of the Physical Sciences.

J. M.

TORONTO, March 4th, 1873.