Three typefaces for mathematics

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Abstract

This paper examines the issues involved in the design of typefaces for mathematics. After a brief discussion of some of the typographic and technical requirements of maths composition, three case studies in the development of maths types are presented: Times 4-line Mathematics Series 569, a complement to the Times New Roman text types as set with Monotype equipment; AMS Euler, an experimental design intended to contrast against non-mathematical typefaces set with TEX; and Cambria Math, designed in concert with a new text face to take advantage of new Microsoft solutions for screen display and maths composition.

In all three cases, the typefaces were created to show the capabilities of new technological solutions for setting maths. The technical advances inherent in each font are shown to be as central to its function as its visual characteristics.

By looking at each typeface and technology in turn, and then comparing and contrasting the issues that are addressed in ! each case, it becomes apparent that even though certain challenges are overcome with technical advances, the need to consider the specific behaviours oftype in a maths setting remains constant.