

Maple in Mathematics Instruction

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ABSTRACT

The Maple symbolic computing system has gained worldwide acceptance as a tool for mathematics instruction and research. By combining numeric, symbolic, and graphic computation on a single platform, Maple allows users to implement innovative approaches to mathematics instruction. The problem-solving and visualization capabilities of Maple make it an excellent vehicle for teaching throughout the undergraduate mathematics curriculum.

The purpose of this “hands on” tutorial is to introduce both Maple and, through examples, its uses in teaching various topics from undergraduate mathematics. More specifically, the tutorial will use Maple to explore and reinforce mathematical concepts from calculus and, to a lesser extent, from linear algebra and differential equations.

This workshop requires no previous knowledge of Maple and it should be of interest to novice as well as experienced users of Maple.