

Omega - a free online Computer Algebra System Explorer

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Abstract

Online courses have become the medium of choice for students who cannot otherwise attend in a traditional classroom setting. Online distance education allows students to take courses in the convenience of their home or office, at their leisure, free of the distractions of campus life, without commute, while at the same time being provided with almost instantaneous access to the instructor and course materials. However, the lack of access to Computer Algebra System, traditionally exists only in computer labs on campus can be a significant detriment to online classes. In this presentation, we will introduce Omega, a free online Computer Algebra System (CAS) Explorer that provides user with immense power in both symbolic and numeric computing. To use Omega, only a web browser is required. User composes and submits mathematical query using a calculator-like graphical user interface. Upon submission, the query is processed by Omega's CAS engine, and the result is displayed in text or graphic formats. Omega can be accessed from desktop/laptop computers, ipad/tablets, and smartphones. It is compatible with all major web browsers. Different CAS can be plugged in as Omega's underlying engine.

Keywords

free, online education, calculator, graphing, maxima, CAS, distance learning