New technology displays math problems on browsers

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A Web browser screen showing a math problem and MathJax software.

(PhysOrg.com) -- A new technology developed with help from Project Euclid at Cornell University Library makes it possible to display complex mathematics problems on Web pages.

Project Euclid's MathJax, an open-source JavaScript display engine, renders standard mathematics codes readable in regular Web browsers.

"MathJax makes it easy to display 'beautiful math' online," said David Ruddy, Project Euclid lead at Cornell. "It has been difficult to present math attractively and reliably on the Web. There are a number of different methods in use, and browsers all behave differently with each. Now, with MathJax, the display problem has been vastly simplified, and Project Euclid users will be able to see math the way authors intended."

The library developed and deployed Project Euclid, an online information community for mathematics and statistics resources from

independent publishers, in 2000. In 2008, Duke University Press (DUP) established a collaborative partnership with Cornell to jointly manage and expand the project.

TeX and MathML software-coded mathematics can be viewed on any modern browser without new plug-ins or font installations. MathJax is turned on for a set of 20 journal titles in Project Euclid, and more titles are being added. Eventually, MathJax will be used throughout Project Euclid.

"MathJax is a transformative new technology, and its implementation on Project Euclid will greatly benefit the independent and society publishers that Euclid was developed for," said Mira Waller, Project Euclid manager at DUP. "Over the past two years, the successful collaboration between Cornell University Library and Duke University Press has allowed Euclid to focus on enhancements, such as MathJax, that advance Euclid's core mission of serving the unique needs of low-cost scholarly communication in the fields of theoretical and applied mathematics and statistics."

MathJax is a joint project of the American Mathematical Society, Design Science Inc. and the Society for Industrial and Applied Mathematics, all of which provided major funding.

 More information: www.mathjax.org/

Provided by Cornell University