

Web Publishing - Display Math Equations

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There are various ways to include mathematical equations in web-published documents.

- **HTML from latex2html**
By default, latex2html creates GIF images of most equations (as well as special accents, external PostScript files, and any LaTeX environments it cannot directly translate into HTML). In the **lequations*.html** files on the left, all but the first equation are GIF images, whereas the ***sample*.html** files consist solely of HTML text.
- **HTML from TtH**
Unlike latex2html, TtH does not use images to display equations; instead, it translates all equations into HTML, relying on symbol fonts supported by common browsers to display equations. It may be necessary to configure your browser to display these fonts correctly. See: TtHMML, a TeX-to-MathML translator from the TtH author.
- **HTML with WebEQ**
WebEQ is designed to produce web-ready equations for inclusion in HTML files. It supports the emerging MathML specification, and can output equations as JPEG or PNG images, Java applets, and/or MathML code. MathML is a markup language which cannot yet be rendered directly by commercial web browsers, but can be used by other conversion tools.
- **PDF**
If you are starting with latex (or tex) source, you can generate PDF directly on Athena using pdflatex (pdfTeX). This is currently beta software, but generally produces good results; it does not require the intermediate processing of a DVI file with special handling of mathematical fonts as is otherwise recommended.
- **MathML**
MathML 2.0 is a product of the W3C Math working group. MathML is a low-level specification for describing mathematics as a basis for machine to machine communication. It provides a much needed foundation for the inclusion of mathematical expressions in web pages. Several implementations of MathML browsers and authoring tools are available, and many are open source software. Go to the MathML software list for descriptions and pointers, or read the Implementation and interoperability report.