

Interactive LaTeX to MathML/ HTML translation.

Most mathematical publications are written in LaTeX.

This is done because LaTeX has an almost unique ability to render mathematical formulas and symbols in the same way they are written in hand.

Unfortunately LaTeX documents does not render very well on the Internet, unless they are compiled into PDF or PS documents, witch makes them very “static”.

MathML is a recommended standard for Internet publishing of mathematics. MathML is also accepted as input in different mathematical computation programs, such as Mathematica or MatLab. Unfortunately MathML it is too verbose to author directly, and so needs authoring tools that can translate from a standard mathematics-authoring markup such as LaTeX.

Thus it would be helpful to have the ability to author documents in LaTeX and then have them translated into MathML.

The goal of this Bachelor-project is to make an application that translates a LaTeX document into a MathML/HTML document, thus making it immediately applicable on a website or in a mathematical computation program.

In this Bachelor-project I will investigate the various existing LaTeX to MathML translators and if possible use one of them as the basis-translator.

Only a subset of LaTeX can be immediately translated because of the non-strict definition of LaTeX. The solution tested in this project is to prompt the user with the types of LaTeX code, that can't be translated and give the user a possibility to change these bits of code easily for the whole LaTeX document.