# **BibTeX**

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May 5, 2017

MATH-310 Introduction to Mathematical Modeling

#### Introduction

BibTeX is an application that runs alongside LATEX to assist the user in compiling bibliographies. It's especially useful if your bibliography is extensive.

To use BibTeX, you need the following files,

- A bibliographic database file this will have a .bib extension and is the file containing the bibliographic entries.
- A bibliographic style file this will have a .bst extension.
  You will not need to create this; it will be provided.

## **Style Options**

There are 6 style options that we will be concerned. As a note, most journals provide their own style options to use for submitted papers.

plain.bst	Sorting by author name; Labels are numbers;
alpha.bst	Sorting by labels; Alphanumeric labels;
unsrt.bst	Sorting by order of appearance; Numeric labels
abbrv.bst	much like plain; Abbreviates first names
	of authors, journals, months
amsplain.bst	AMS version of plain
amsalpha.bst	AMS version of alpha

#### **Getting Started**

Suppose you have a .bib file (we'll discuss this in a moment), mybiblio.bib, and you want to use the plain style, then the following lines will go at the end of your document environment. \bibliographystyle{plain} \bibliography{mybiblio}

Each item in your bibliography file has a *key* which allows us to use cite in your document. Then BibTeX will automatically place all cited works into your document's Bibliography.

We may also place non-cited works into your Bibliography by using the nocite command in your document.

#### **Example**

Consider the example given by the files, bibEx01.tex and bibEx01.bib

In order to compile these files into the final document, you must

- 1. Compile bibEx01.tex
  - creates the bibEx01.aux file;
- 2. Compile bibEx01.bib
  - resolves the references to the bibliography entries;
- 3. Compile bibEx01.tex
  - incorporates bibliography entries into document;
- 4. Compile bibEx01.tex
  - resolves all citations in the document.

### **Example**

Once you have successfully compiled the tex and bib file, complete the following edits:

The original file uses amsplain for the formatting. Change the formatting to the formats,

- plain,
- alpha,
- unsrt, and
- abbrv.

Make note of how each format affects the bibliography in the final document.