

**Reference
& Appendix**

L^AT_EX

S. Moghari

**Shahrood University of Technology
Mathematical Sciences Department**

Fall 2016

Outlines

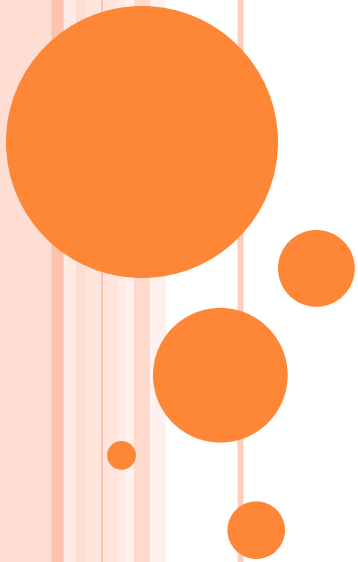
1 Bibliography

2 Glossary

3 Index

4 Appendix

5 Hyperlinks



Introduction

```
\documentclass{article}
\usepackage[english]{babel}
\usepackage{biblatex}
\addbibresource{bibfile.bib}
```

The database
of references

```
\begin{document}
```

Let's cite! The Einstein's journal paper `\cite{einstein}` and the Dirac's book `\cite{dirac}` are physics related items.

```
\printbibliography
```

```
\end{document}
```

Let's cite! The Einstein's journal paper [2] and the Dirac's book [1] are physics related items.

References

- [1] Paul Adrien Maurice Dirac. *The Principles of Quantum Mechanics*. International series of monographs on physics. Clarendon Press, 1981. ISBN: 9780198520115.
- [2] Albert Einstein. "Zur Elektrodynamik bewegter Körper. (German) [On the electrodynamics of moving bodies]". In: *Annalen der Physik* 322.10 (1905), pp. 891–921. DOI: <http://dx.doi.org/10.1002/andp.19053221004>.

Standard bibliography file entry types

article : Article from a magazine or journal

book : A published book

booklet : Is printed but have no publisher or sponsoring institution

conference : An article in a conference proceedings

inbook : A part of a book (section, chapter and so on)

incollection : A part of a book having its own title

inproceedings : An article in a conference proceedings

manual : Technical documentation

masterthesis : A Master's thesis

misc : Something that doesn't fit in any other type

phdthesis : A PhD thesis

proceedings : The same as conference

techreport : Report published by an institution

unpublished : Document not formally published, with author and title

The bibliography file

```
@article{einstein,  
  author = "Albert Einstein",  
  title = "{Zur Elektrodynamik bewegter K{\o}rper}. ({German})  
  [{On} the electrodynamics of moving bodies]",  
  journal = "Annalen der Physik",  
  volume = "322",  
  number = "10",  
  pages = "891--921",  
  year = "1905",  
  DOI = "http://dx.doi.org/10.1002/andp.19053221004",  
  keywords = "physics"  
}
```

The bibliography file

```
@book{dirac,  
  title={The Principles of Quantum Mechanics},  
  author={Paul Adrien Maurice Dirac},  
  isbn={9780198520115},  
  series={International series of monographs on physics},  
  year={1981},  
  publisher={Clarendon Press},  
  keywords = {physics}  
}
```

The bibliography file

```
@online{knuthwebsite,  
  author   = "Donald Knuth",  
  title    = "Knuth: Computers and Typesetting",  
  url      = "http://www-cs-faculty.stanford.edu/~uno/abcde.html",  
  keywords = "latex, knuth"  
}
```

The bibliography file

```
@inbook{knuth-fa,  
  author = "Donald E. Knuth",  
  title = "Fundamental Algorithms",  
  publisher = "Addison-Wesley",  
  year = "1973",  
  chapter = "1.2",  
  keywords = "knuth,programming"  
}
```


Printing the bibliography

`\printbibliography`

`\printbibliography`

`\printbibliography`

`\printbibliography`

Articles only

- [Ein05] Albert Einstein. “Zur Elektrodynamik bewegter Körper. (German) [On the electrodynamics of moving bodies]”. In: *Annalen der Physik* 322.10 (1905), pp. 891–921. DOI: <http://dx.doi.org/10.1002/andp.19053221004>.
- [Gre93] George D. Greenwade. “The Comprehensive Tex Archive Network (CTAN)”. In: *TUGBoat* 14.3 (1993), pp. 342–351.

Books only

- [Knu68] Donald E. Knuth. *The Art of Computer Programming*. Four volumes. Seven volumes planned. Addison-Wesley, 1968.
- [Dir81] Paul Adrien Maurice Dirac. *The Principles of Quantum Mechanics*. International series of monographs on physics. Clarendon Press, 1981. ISBN: 9780198520115.
- [GMS93] Michel Goossens, Frank Mittelbach, and Alexander Samarin. *The L^AT_EX Companion*. Reading, Massachusetts: Addison-Wesley, 1993.

Physics-related only

- [Ein05] Albert Einstein. “Zur Elektrodynamik bewegter Körper. (German) [On the electrodynamics of moving bodies]”. In: *Annalen der Physik* 322.10 (1905), pp. 891–921. DOI: <http://dx.doi.org/10.1002/andp.19053221004>.
- [Dir81] Paul Adrien Maurice Dirac. *The Principles of Quantum Mechanics*. International series of monographs on physics. Clarendon Press, 1981. ISBN: 9780198520115.

L^AT_EX-related only

- [GMS93] Michel Goossens, Frank Mittelbach, and Alexander Samarin. *The L^AT_EX Companion*. Reading, Massachusetts: Addison-Wesley, 1993.
- [Gre93] George D. Greenwade. “The Comprehensive Tex Archive Network (CTAN)”. In: *TUGBoat* 14.3 (1993), pp. 342–351.
- [Knu] Donald Knuth. *Knuth: Computers and Typesetting*. URL: <http://www-cs-faculty.stanford.edu/~uno/abode.html>.

ed only}]

only}]

Bibliography in TOC

```
\printbibliography[
```

```
heading=bibintoc, title={Whole bibliography}
```

```
]
```

```
\printbibliography[
```

```
heading=subbibintoc, type=article, title={Articles only}
```

```
]
```

Contents

1 First section	1
Whole bibliography	1
Articles only	3

Biblatex bibliography styles

%in the preamble

%-----

```
\usepackage[  
  backend=biber,  
  style=stylename,  
]{biblatex}
```

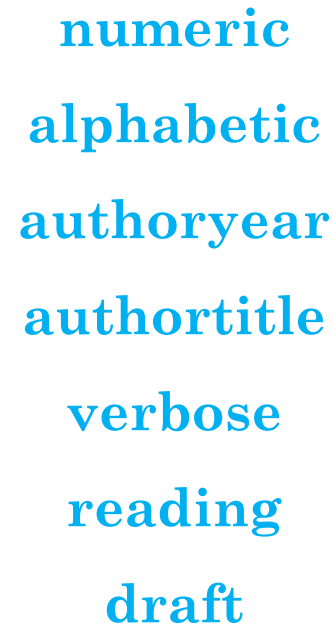
```
\addbibresource{bibfile}
```

%-----

...

%Where the bibliography will be printed

```
\printbibliography
```



- numeric
- alphabetic
- authoryear
- authortitle
- verbose
- reading
- draft

numeric

Items are cited: *The L^AT_EX Companion* book [2], the Einstein journal paper [1], and The L^AT_EX related items are [2, 3].

References

- [1] Albert Einstein. “Zur Elektrodynamik bewegter Körper. (German) [On the electrodynamics of moving bodies]”. In: *Annalen der Physik* 322.10 (1905), pp. 891–921. DOI: <http://dx.doi.org/10.1002/andp.19053221004>.
- [2] Michel Goossens, Frank Mittelbach, and Alexander Samarin. *The L^AT_EX Companion*. Reading, Massachusetts: Addison-Wesley, 1993.
- [3] Donald Knuth. *Knuth: Computers and Typesetting*. URL: <http://www-cs-faculty.stanford.edu/~5C~%7B%7Duno/abcde.html>.



alphanumeric

Items are cited: *The L^AT_EX Companion* book [GMS93], the Einstein journal paper [Ein05], and The L^AT_EX related items are [GMS93; Knu].

References

- [Ein05] Albert Einstein. “Zur Elektrodynamik bewegter Körper. (German) [On the electrodynamics of moving bodies]”. In: *Annalen der Physik* 322.10 (1905), pp. 891–921. DOI: <http://dx.doi.org/10.1002/andp.19053221004>.
- [GMS93] Michel Goossens, Frank Mittelbach, and Alexander Samarin. *The L^AT_EX Companion*. Reading, Massachusetts: Addison-Wesley, 1993.
- [Knu] Donald Knuth. *Knuth: Computers and Typesetting*. URL: <http://www-cs-faculty.stanford.edu/%5C~%7B%7Duno/abcde.html>.



authoryear

Items are cited: *The L^AT_EX Companion* book Goossens, Mittelbach, and Samarin 1993, the Einstein journal paper Einstein 1905, and The L^AT_EX related items are Goossens, Mittelbach, and Samarin 1993; Knuth n.d.

References

- Einstein, Albert (1905). “Zur Elektrodynamik bewegter Körper. (German) [On the electrodynamics of moving bodies]”. In: *Annalen der Physik* 322.10, pp. 891–921. DOI: <http://dx.doi.org/10.1002/andp.19053221004>.
- Goossens, Michel, Frank Mittelbach, and Alexander Samarin (1993). *The L^AT_EX Companion*. Reading, Massachusetts: Addison-Wesley.
- Knuth, Donald. *Knuth: Computers and Typesetting*. URL: <http://www-cs-faculty.stanford.edu/~duno/abcde.html>.



authortitle

Items are cited: *The L^AT_EX Companion* book Goossens, Mittelbach, and Samarin, *The L^AT_EX Companion*, the Einstein journal paper Einstein, “Zur Elektrodynamik bewegter Körper. (German) [On the electrodynamics of moving bodies]”, and The L^AT_EX related items are Goossens, Mittelbach, and Samarin, *The L^AT_EX Companion*; Knuth, *Knuth: Computers and Typesetting*.

References

- Einstein, Albert. “Zur Elektrodynamik bewegter Körper. (German) [On the electrodynamics of moving bodies]”. In: *Annalen der Physik* 322.10 (1905), pp. 891–921. DOI: <http://dx.doi.org/10.1002/andp.19053221004>.
- Goossens, Michel, Frank Mittelbach, and Alexander Samarin. *The L^AT_EX Companion*. Reading, Massachusetts: Addison-Wesley, 1993.
- Knuth, Donald. *Knuth: Computers and Typesetting*. URL: <http://www-cs-faculty.stanford.edu/%5C~%7B%7Duno/abcde.html>.



Biblatex bibliography styles

verbose

Items are cited: *The L^AT_EX Companion* book Michel Goossens, Frank Mittelbach, and Alexander Samarin. *The L^AT_EX Companion*. Reading, Massachusetts: Addison-Wesley, 1993, the Einstein journal paper Albert Einstein. “Zur Elektrodynamik bewegter Körper. (German) [On the electrodynamics of moving bodies]”. In: *Annalen der Physik* 322.10 (1905), pp. 891–921. DOI: <http://dx.doi.org/10.1002/andp.19053221004>, and The L^AT_EX related items are Goossens, Mittelbach, and Samarin, *The L^AT_EX Companion*; Donald Knuth. *Knuth: Computers and Typesetting*. URL: <http://www-cs-faculty.stanford.edu/~duno/abcde.html>.

References

- Einstein, Albert. “Zur Elektrodynamik bewegter Körper. (German) [On the electrodynamics of moving bodies]”. In: *Annalen der Physik* 322.10 (1905), pp. 891–921. DOI: <http://dx.doi.org/10.1002/andp.19053221004>.
- Goossens, Michel, Frank Mittelbach, and Alexander Samarin. *The L^AT_EX Companion*. Reading, Massachusetts: Addison-Wesley, 1993.
- Knuth, Donald. *Knuth: Computers and Typesetting*. URL: <http://www-cs-faculty.stanford.edu/~duno/abcde.html>.



Biblatex bibliography styles

reading

Items are cited: *The L^AT_EX Companion* book Goossens, Mittelbach, and Samarin, *The L^AT_EX Companion*, the Einstein journal paper Einstein, “Zur Elektrodynamik bewegter Körper. (German) [On the electrodynamics of moving bodies]”, and The L^AT_EX related items are Goossens, Mittelbach, and Samarin, *The L^AT_EX Companion*; Knuth, *Knuth: Computers and Typesetting*.

References

Einstein: Zur Elektrodynamik bewegter Körper. (German) [On the electrodynamics of moving bodies] **einstein**

Albert Einstein. “Zur Elektrodynamik bewegter Körper. (German) [On the electrodynamics of moving bodies]”. In: *Annalen der Physik* 322.10 (1905), pp. 891–921. DOI: <http://dx.doi.org/10.1002/andp.19053221004>.

Goossens et al.: The L^AT_EX Companion **latexcompanion**

Michel Goossens, Frank Mittelbach, and Alexander Samarin. *The L^AT_EX Companion*. Reading, Massachusetts: Addison-Wesley, 1993.

Knuth: Knuth: Computers and Typesetting **knuthwebsite**

Donald Knuth. *Knuth: Computers and Typesetting*. URL: <http://www-cs-faculty.stanford.edu/~5C-7B%7Duno/abcde.html>.



Biblatex bibliography styles

draft

Items are cited: *The L^AT_EX Companion* book **latexcompanion**, the Einstein journal paper **einstein**, and The L^AT_EX related items are **latexcompanion**; **knuthwebsite**.

References

einstein Albert Einstein. “Zur Elektrodynamik bewegter Körper. (German) [On the electrodynamics of moving bodies]”. In: *Annalen der Physik* 322.10 (1905), pp. 891–921. DOI: <http://dx.doi.org/10.1002/andp.19053221004>.


knuthwebsite Donald Knuth. *Knuth: Computers and Typesetting*. URL: <http://www-cs-faculty.stanford.edu/~knuth/abcde.html>.

latexcompanion Michel Goossens, Frank Mittelbach, and Alexander Samarin. *The L^AT_EX Companion*. Reading, Massachusetts: Addison-Wesley, 1993.



Biblatex citation styles

```
\usepackage[  
backend=biber,  
style=alphabetic,  
citestyle=authoryear,  
]{biblatex}
```



numeric
numeric-comp
numeric-verb
alphabetic
alphabetic-verb
authoryear
authoryear-comp
authoryear-ibid
authoryear-icom
Authortitle
...

Biblatex citation styles

numeric	[1,2,3,7]
numeric-comp	[1-3,7]
numeric-verb	[1];[2];[3];[7]
alphabetic	[Doe98, Doe95, Farn2004]
alphabetic-verb	[Doe98];[Doe95];[Farn2004]
authoryear	Doe 1992, Doe 1995
authoryear-comp	Doe 1992,1995
....	

Bibliography management with natbib

```
\documentclass{article}
\usepackage{natbib}
\bibliographystyle{unsrtnat}

\begin{document}

....

\bibliography{bibfile}

\end{document}
```

dinat
humannat
plainnat
abbrvnat
unsrtnat
rusnat
ksfh_nat

Bibliography n

This document is an example of `natbib` package using in bibliography management. Three items are cited: *The L^AT_EX Companion* book Goossens et al. [1993], the Einstein journal paper Einstein [1905], and the Donald Knuth's website Knuth. The L^AT_EX related items are Goossens et al. [1993], Knuth.

References

Michel Goossens, Frank Mittelbach, and Alexander Samarin. *The L^AT_EX Companion*. Addison-Wesley, Reading, Massachusetts, 1993.

Albert Einstein. Zur Elektrodynamik bewegter Körper. (German) [On the electrodynamics of moving bodies]. *Annalen der Physik*, 322(10):891–921, 1905. doi: <http://dx.doi.org/10.1002/andp.19053221004>.

Donald Knuth. Knuth: Computers and typesetting. URL <http://www-cs-faculty.stanford.edu/~uno/abcde.html>.

dinat

Items are cited: *The L^AT_EX Companion* book Goossens u. a. (1993), the Einstein journal paper Einstein (1905), and The L^AT_EX related items are Goossens u. a. (1993); Knuth.

References

- [Einstein 1905] EINSTEIN, Albert: Zur Elektrodynamik bewegter Körper. (German) [On the electrodynamics of moving bodies]. In: *Annalen der Physik* 322 (1905), Nr. 10, S. 891–921
- [Goossens u. a. 1993] GOOSSENS, Michel ; MITTELBACH, Frank ; SAMARIN, Alexander: *The L^AT_EX Companion*. Reading, Massachusetts : Addison-Wesley, 1993
- [Knuth] KNUTH, Donald: *Knuth: Computers and Typesetting*. – URL <http://www-cs-faculty.stanford.edu/~uno/abcde.html>



humannat

Items are cited: *The L^AT_EX Companion* book Goossens et al. (1993), the Einstein journal paper Einstein (1905), and The L^AT_EX related items are Goossens et al. (1993); Knuth.

References

Einstein, A.

1905. Zur Elektrodynamik bewegter Körper. (German) [On the electrodynamics of moving bodies]. *Annalen der Physik*, 322(10):891–921.

Goossens, M., F. Mittelbach, and A. Samarin

1993. *The L^AT_EX Companion*. Reading, Massachusetts: Addison-Wesley.

Knuth, D.

. Knuth: Computers and typesetting.



plainnat

Items are cited: *The L^AT_EX Companion* book Goossens et al. [1993], the Einstein journal paper Einstein [1905], and The L^AT_EX related items are Goossens et al. [1993], Knuth.

References

Albert Einstein. Zur Elektrodynamik bewegter Körper. (German) [On the electrodynamics of moving bodies]. *Annalen der Physik*, 322(10):891–921, 1905. doi: <http://dx.doi.org/10.1002/andp.19053221004>.

Michel Goossens, Frank Mittelbach, and Alexander Samarin. *The L^AT_EX Companion*. Addison-Wesley, Reading, Massachusetts, 1993.

Donald Knuth. Knuth: Computers and typesetting. URL <http://www-cs-faculty.stanford.edu/~uno/abcde.html>.



abbrvnat

Items are cited: *The L^AT_EX Companion* book Goossens et al. [1993], the Einstein journal paper Einstein [1905], and The L^AT_EX related items are Goossens et al. [1993], Knuth.

References

- A. Einstein. Zur Elektrodynamik bewegter Körper. (German) [On the electrodynamics of moving bodies]. *Annalen der Physik*, 322(10):891–921, 1905. doi: <http://dx.doi.org/10.1002/andp.19053221004>.
- M. Goossens, F. Mittelbach, and A. Samarin. *The L^AT_EX Companion*. Addison-Wesley, Reading, Massachusetts, 1993.
- D. Knuth. Knuth: Computers and typesetting. URL <http://www-cs-faculty.stanford.edu/~uno/abcde.html>.



unsrtnat

Items are cited: *The L^AT_EX Companion* book Goossens et al. [1993], the Einstein journal paper Einstein [1905], and The L^AT_EX related items are Goossens et al. [1993], Knuth.

References

Michel Goossens, Frank Mittelbach, and Alexander Samarin. *The L^AT_EX Companion*. Addison-Wesley, Reading, Massachusetts, 1993.

Albert Einstein. Zur Elektrodynamik bewegter Körper. (German) [On the electrodynamics of moving bodies]. *Annalen der Physik*, 322(10):891–921, 1905. doi: <http://dx.doi.org/10.1002/andp.19053221004>.

Donald Knuth. Knuth: Computers and typesetting. URL <http://www-cs-faculty.stanford.edu/~uno/abcde.html>.



rusnat

Items are cited: *The L^AT_EX Companion* book Goossens et al. (1993), the Einstein journal paper Einstein (1905), and The L^AT_EX related items are Goossens et al. (1993); Knuth (????).

References

Einstein Albert. Zur Elektrodynamik bewegter Körper. (German) [On the electrodynamics of moving bodies] // *Annalen der Physik*. 1905. 322, 10. 891–921.

Goossens Michel, Mittelbach Frank, Samarin Alexander. *The L^AT_EX Companion*. Reading, Massachusetts: Addison-Wesley, 1993.

Knuth Donald. *Knuth: Computers and Typesetting*. ????



`ksfh_nat`

Items are cited: *The L^AT_EX Companion* book (2), the Einstein journal paper (1), and The L^AT_EX related items are (2; Knuth)Knuth).

References

- [1] Einstein, Albert(1905): *Zur Elektrodynamik bewegter Körper. (German) [On the electrodynamics of moving bodies]*, 10: 891–921.
- [2] Goossens, Michel / Mittelbach, Frank / Samarin, Alexander (1993): *The L^AT_EX Companion*. Reading, Massachusetts, Addison-Wesley.
- [Knuth)Knuth] Knuth, Donald *Knuth: Computers and Typesetting*



Natbib citation styles

```
\documentclass{article}
```

```
\usepackage{natbib}
```

```
\bibliographystyle{abbrvnat}
```

```
\setcitestyle{authoryear,open={{(}},close={}}}}
```

```
\begin{document}
```

```
\section{First Section}
```

This document is an example. Two items are cited: \textit{The

\LaTeX\ Companion} First Section

Einstein's journal

This document is an example, Two items are cited: *The L^AT_EX Companion* book ((see Goossens et al., 1993, chap 2)) and Einstein's journal paper Einstein ((1905)).

```
%Imports the bibReferences
```

```
\bibliography{bib
```

```
\end{document}
```

A. Einstein. Zur Elektrodynamik bewegter Körper. (German) [On the electrodynamics of moving bodies]. *Annalen der Physik*, 322(10):891–921, 1905. doi: <http://dx.doi.org/10.1002/andp.19053221004>.

M. Goossens, F. Mittelbach, and A. Samarin. *The L^AT_EX Companion*. Addison-Wesley, Reading, Massachusetts, 1993.

Natbib citation styles

```
\setcitestyle{authoryear, open={{(}}, close={}}}
```

Citation mode: authoryear, numbers or super.

Brackets: round or square. You can manually set any other opening and closing characters with `open={char}` and `close={char}`.

Citation separator: semicolon, comma.

Separator between author and year: `aysep{char}`.

Separator between years with common author:
<code>`yysep={char}`.

Text before post-note: `notesep={text}`.

Natbib citation styles

<code>\citet{}</code>	Textual citation
<code>\citep{}</code>	Parenthetical citation
<code>\citet*{}</code>	Same as <code>\citet</code> but if there are several authors, all names are printed
<code>\citep*{}</code>	The same as <code>\citep</code> but if there are several authors, all names are printed
<code>\citeauthor{}</code>	Prints only the name of the author(s)
<code>\citeyear{}</code>	Prints only the year of the publication

Adding the bibliography in the TOC

```
\documentclass[a4paper,10pt]{article}
\usepackage{natbib}
\usepackage[nottoc]{tocbibind}

\begin{document}
\tableofcontents

...
\bibliographystyle{unsrt}
\bibliography{bibfile}

\end{document}
```

Contents

1	First Section	1
	References	1

How to create a glossary

The Latex typesetting markup language is specially suitable for documents that include mathematics.

Glossary

latex Is a mark up language specially suited for scientific documents. 1

mathematics Mathematics is what mathematicians do. 1



Glossary

```
\usepackage{glossaries}
```

```
\makeglossaries
```

```
\newglossaryentry{latex} { name=latex, description={Is a mark  
up language specially suited for scientific documents} }
```

```
\newglossaryentry{maths} { name=mathematics,  
description={Mathematics is what mathematicians do} }
```

```
\begin{document}
```

...

The **\Gls{latex}** typesetting markup language is specially suitable for documents that include **\gls{maths}**.

```
\clearpage
```

```
\printglossary
```

```
\end{document}
```

Terms and Acronyms

The Latex typesetting markup language is specially suitable for documents that include mathematics. Formulas are rendered properly and easily once one gets used to the commands.

Given a set of numbers, there are elementary methods to compute its Greatest Common Divisor, which is abbreviated GCD. This process is similar to that used for the Least Common Multiple (LCM).

Acronyms

GCD Greatest Common Divisor. 1

LCM Least Common Multiple. 1

Glossary

formula A mathematical expression. 1

latex Is a mark up language specially suited for scientific documents. 1

mathematics Mathematics is what mathematicians do. 1



Terms and Acronyms

```
\usepackage{glossaries}
```

```
\makeglossaries
```

```
\newglossaryentry{latex} { name=latex, description={Is a mark up language  
specially suited for scientific documents} }
```

```
\newglossaryentry{maths} { name=mathematics, description={Mathematics is  
what mathematicians do} }
```

```
\newglossaryentry{formula} { name=formula, description={A mathematical  
expression} }
```

```
\newacronym{gcd}{GCD}{Greatest Common Divisor}
```

```
\newacronym{lcm}{LCM}{Least Common Multiple}
```

```
\begin{document}
```

The `\Gls{latex}` typesetting markup language is specially suitable for documents that include `\gls{maths}`. `\Glspl{formula}` are rendered properly and easily once one gets used to the commands.

Given a set of numbers, there are elementary methods to compute its `\acrlong{gcd}`, which is abbreviated `\acrshort{gcd}`. This process is similar to that used for the `\acrfull{lcm}`.

```
\clearpage
```

```
\printglossary[type=\acronymtype]
```

```
\printglossary
```

```
\end{document}
```

Title of the Glossary

...

```
\begin{document}
```

...

```
\clearpage
```

```
\printglossary[title=Special Terms, toctitle=List of terms]
```

```
\end{document}
```

Special Terms

formula A mathematical expression. 1

latex Is a mark up language specially suited for scientific documents. 1

mathematics Mathematics is what mathematicians do. 1

Show the glossary in the TOC

```
\usepackage[toc]{glossaries}
```

...

```
\begin{document}
```

...

```
\clearpage
```

```
\printglossary
```

```
\end{document}
```

Contents

1	First Section	1
2	Second Section	2
	Glossary	3
	Acronyms	4

Index

```
\usepackage{imakeidx}
```

```
\makeindex[columns=3, title=Alphabetical Index]
```

```
\begin{document}
```

```
\section{Introduction}
```

In this example several keywords `\index{keywords}` will be used which are important and deserve to appear in the Index `\index{Index}`.

...

```
\printindex
```

```
\end{document}
```

Alphabetical Index

generate, 1

Index, 1

 nested, 1

keywords, 1

 used, 2

others, 1

section, 2

Index

```
\usepackage{imakeidx}
```

```
\makeindex[columns=3, title=Alphabetical Index, intoc]
```

```
\begin{document}
```

```
\tableofcontents
```

```
...
```

```
\printindex
```

```
\end{document}
```

Contents

1	Introduction	1
2	Second section	2
	Alphabetical Index	3

Hyperlinks

```
\usepackage{hyperref}
```

```
\hypersetup{
```

```
colorlinks=true, linkcolor=blue, filecolor=magenta, urlcolor=cyan}
```

```
\urlstyle{same}
```

First Chapter

This will be an empty chapter and I will put some text here

$$\sum_{i=0}^{\infty} a_i x^i \quad (1.1)$$

The equation 1.1 shows a sum that is divergent. This formula will be latter used in the page 5.

For further references see [Something Linky](#) or go to the next url: <http://www.sharelatex.com> or open the next file [File.txt](#)

It's also possible to link directly any word or [any sentence](#) in you document.

Linking web addresses

For further references see

`\href{http://www.shahroodut.ac.ir}{Something Linky}`

or go to the next url: `\url{http://www.shahroodut.ac.ir}`

For further references see [Something Linky](http://www.shahroodut.ac.ir) or
go to the next url: <http://www.shahroodut.ac.ir>

The END

Thank you!

