Introduction to LaTeX

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LaTeX

What is LaTeX?

- LaTeX = Leslie Lamport + TeX
- TeX - computer typesetting system (low-level language)
- LaTeX - set of TeX macros + program to process documents

LaTeX objectives

- provides high-quality typing
- universal across all computer systems (PDF, DVI, PS)
- separates **logical structure** of text from its **visual presentation**
- one can develop custom macros

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LaTeX applications

- Typesetting of journal articles, technical reports, books, slide presentations
- Control over large documents containing sectioning, cross-references, tables and figures
- Typesetiing of complex mathematical formulas
- Automatic generation of bibliographies and indexes

Some of LaTeX tools

- beamer - for presentations
- BibTeX - for bibligraphy and references

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LaTeX disadvantages

- You can't see the final result straight away
- You need to know the commands for LaTeX markup
- It can be hard to obtain certain results
- Beginner has a hard time to programme themes

LaTeX advantages

- The layout, fonts, tables are consistent throughout
- Mathematical formulae can be easily typeset
- Indices, footnotes, upper and lowercases, references are generated easily
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- Unix-like systems:
  - Kile (http://kile.sourceforge.net/)
  - Texmaker (http://www.xm1math.net/texmaker/)
- Windows systems:
  - TeXnicCenter (http://www.texniccenter.org/)
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