Nice trees in XY-pic

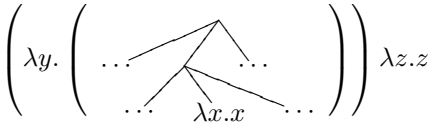
Benoît Valiron

June 4, 2010

This is a small wrapping around xypic to write some trees.

1 Result

One can do it directly

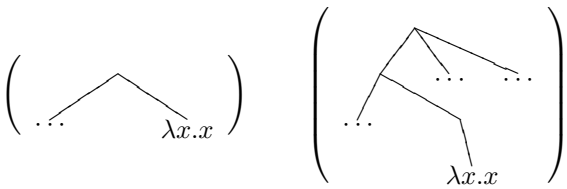


Or one can use some definitions, to make it more convenient to use:

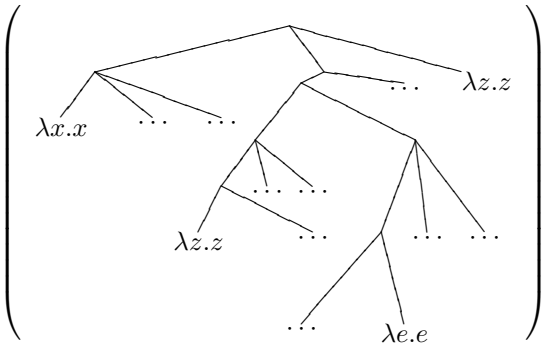
- `\btroot{...}` : the root
- `\bt1node{displ}{...}`: one node, with an horizontal displacement of `displ` with respect to the parent node.
- `\bt2node{displ}{displ}{...}{...}`: for 2 children nodes
- `\bt3node{displ}{displ}{displ}{...}{...}{...}`: for 3 nodes.
- `\btleaf{U|UL|UR|D|DR|DL|D|R}{formula}`: a node. The letter code stands for up, down, right or left (xy-notation), for adjusting the placement.
- `\btdots`: shortcut for `\btleaf{U}{\cdots}`

One variable `\btheight` can be redefine using `\def\btheight{size}`. It stands for the height between a parent and its children in the tree.

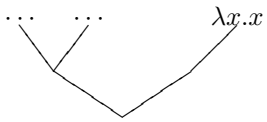
A first example :



A more advanced one:



A reversed tree (with positive `\btheight`):



2 Installation

You merely need to copy the MACROS part of the tex-source of this file into your header. The (sparse) documentation sits inside the source, in the examples.

Note: This is all made in XY-pic. By default, everything is rendered in DVI. Although this is arguably more portable, you might want to use a PS driver:

```
\usepackage[dvips]{xy}
\usepackage[dvitops]{xy}
```

depending on the backend program you use to transform your DVI into PS. If you use the `dvips` driver, to get a PDF you need to produce the following sequence of moves:

```
$ latex myfile.tex
$ dvips [-t a4|letter|...] [-t landscape] -o myfile.ps myfile.dvi
$ ps2pdf myfile.ps
```

Talk to you local guru in case of problem...