# The LRT Symbol in LaTeX

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To produce the expression

$$L \underset{H_0}{\overset{H_1}{\gtrless}} \eta$$

in LaTeX, in math mode, use the commands

```
L \LRT{H_1}{H_0} \eta
```

where you have included

```
\usepackage{amssymb} % needed for \gtrless symbol

\def\LRT#1#2{\!
\raisebox{.2ex}{$
{{\scriptstyle\;#1}\atop{\displaystyle\gtrless}}
\atop
{\raisebox{-1.25ex}{$\scriptstyle\;#2$}}
$}
\!}
```

in your preamble.

### *Changes*

1. 7/17/2012: My previous definition of the LRT symbol gave

   $$L \underset{H_0}{\overset{H_1}{\gtrless}} \eta$$

   which had too much space around the LRT symbol. So I removed `\mathop{}` and replaced it with `\!` on both sides of the LRT symbol. Now the amount of space is nearly what you get with $L = \eta$.

2. 3/8/2014: Changed `\ds` to `\displaystyle` because the command `\def\ds{\displaystyle}` had been omitted.