

# SubSupScripts

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<http://tex.nopkoguo.net/subsupscripts>

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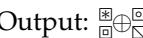
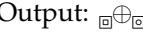
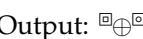
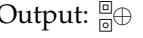
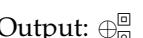
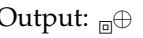
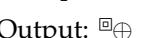
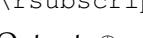
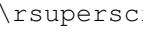
Version 1.0 — October 27, 2009

**Brief description of the package:** This package provides some new more flexible commands to typeset subscripts and superscripts in mathematical mode.

## 1 Usage

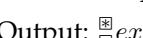
### 1.1 Default lengths

The following commands use the default lengths, as defined in 2.1. They are quite tight and are useful in case of an operator such as  $\oplus$ .

- `\fourscripts{\oplus}{\boxtimes}{\boxcirc}{\boxdot}{\boxwedge}`  
Output:     
- `\lrscripts{\oplus}{\boxcirc}{\boxdot}`  
Output: 
- `\lrscripts{\oplus}{\boxcirc}{\boxdot}`  
Output: 
- `\twoscripts{\oplus}{\boxcirc}`  
Output: 
- `\tworscripts{\oplus}{\boxcirc}{\boxdot}`  
Output: 
- `\lsubscript{\oplus}{\boxcirc}`  
Output: 
- `\lscript{\oplus}{\boxcirc}`  
Output: 
- `\rsubscript{\oplus}{\boxcirc}`  
Output: 
- `\rsuperscript{\oplus}{\boxcirc}`  
Output: 

### 1.2 Larger skips

The following commands use larger lengths, as defined in 2.1: this is achieved by running the command `\largerSkips`. This is needed when we want to apply subscripts or superscripts to something larger than  $\oplus$ , such as *expression*.

- `\fourscripts{expression}{\boxtimes}{\boxcirc}{\boxdot}{\boxwedge}`  
Output:     

- `\lsubscripts{expression} { }`  
Output:  $\square expression \square$
- `\rsubscripts{expression} { }`  
Output:  $\square expression \square$
- `\twolscripts{expression} { }`  
Output:  $\square expression$
- `\tworscripts{expression} { }`  
Output:  $expression \square$
- `\lscript{expression} { }`  
Output:  $\square expression$
- `\rscript{expression} { }`  
Output:  $\square expression$
- `\lsubscript{expression} { }`  
Output:  $\square expression \square$
- `\rsubscript{expression} { }`  
Output:  $expression \square$
- `\rsuperscript{expression} { }`  
Output:  $expression \square$

### 1.3 Changing the default lengths

The following commands can be used to change the default skips between subscripts and/or superscripts and  $\oplus$ :

- `\setSingleLSkip{\ell_L}` changes the value of `\singleleftskip` to  $\ell_L$ : this affects the skip in all the commands putting a subscript and/or a superscript on the left side of  $\oplus$ ;
- `\setSingleRSkip{\ell_R}` changes the value of `\singlerightskip` to  $\ell_R$ : this affects the skip in all the commands putting a subscript and/or a superscript on the right side of  $\oplus$ ;
- `\setDblLSSkip{\ell_L}` changes the value of `\dblleftskip` to  $\ell_L$ : this affects the left skip in all the commands putting a subscript and/or a superscript on both sides of  $\oplus$ ;
- `\setDblRSSkip{\ell_R}` changes the value of `\dblrightskip` to  $\ell_R$ : this affects the right skip in all the commands putting a subscript and/or a superscript on both sides of  $\oplus$ .

### 1.4 Custom lengths

If you want to define the left and right skip on the sides of  $\oplus$  each time you write a command, you have the following options ( $\ell_I$  is 2ex in these examples):

- `\fourscriptsC{\oplus} { } { } { } {\ell_L} {\ell_R}`  
Output:  $\square \oplus \square$
- `\lsubscriptsC{\oplus} { } { } {\ell_L} {\ell_R}`  
Output:  $\square \oplus \square$
- `\rsubscriptsC{\oplus} { } { } {\ell_L} {\ell_R}`  
Output:  $\square \oplus \square$
- `\twolscripts[\ell_L]{\oplus} { } { }`  
Output:  $\square \oplus$

- $\text{\tworscripts}[\ell_R]{\oplus}{\square}{\square}$   
Output:  $\oplus \square \square$
- $\text{\lscriptscript}[\ell_L]{\oplus}{\square}$   
Output:  $\square \oplus$
- $\text{\lscriptscript}[\ell_L]{\oplus}{\square}$   
Output:  $\square \oplus$
- $\text{\rscriptscript}[\ell_R]{\oplus}{\square}$   
Output:  $\oplus \square$
- $\text{\rsuperscripts}[\ell_R]{\oplus}{\square}$   
Output:  $\oplus \square$

## 2 What does the package actually contains?

You don't really need to read the following stuff to use the package, but have a look at it if you want to have an idea of how the package works without looking at the code.

### 2.1 Lengths definitions

This lengths are used to define the default skips on the left and on the right side of  $\oplus$ .

- $\text{\singleleftscriptskip}$ : default -0.27ex, larger<sup>1</sup> -0.16ex;
- $\text{\singlerightscriptskip}$ : default -0.18ex, larger -0.07ex;
- $\text{\dblleftscriptskip}$ : default -0.75ex, larger 0ex;
- $\text{\dblrightscriptskip}$ : default -0.645ex, larger 0ex.

### 2.2 Base commands

The base commands are only three, all the rest is built on top of them:

- $\text{\newcommand}{\fourscriptsC}[7]$   
 $\{ \{ \text{\null} \}^{\#2} \_ \{ \#3 \} \text{\hspace}{\#6} \#1 \text{\hspace}{\#7} \{ \text{\null} \}^{\#4} \_ \{ \#5 \} \}$
- $\text{\newcommand}{\twolscripts}[4]$   
 $[ \text{\singleleftscriptskip} ] \{ \{ \text{\null} \}^{\#3} \_ \{ \#4 \} \text{\hspace}{\#1} \#2 \}$
- $\text{\newcommand}{\tworscripts}[4]$   
 $[ \text{\singlerightscriptskip} ] \{ \#2 \text{\hspace}{\#1} \{ \text{\null} \}^{\#3} \_ \{ \#4 \} \}$

## 3 Contacts

As you can see this package boils down to just a few new command definitions, but it can help save some time — I wrote it because I was not really satisfied of what I had found searching the web.

If you have comments or want to report any bug, please send a mail to [subsupscripts@tex.nopkoguo.net](mailto:subsupscripts@tex.nopkoguo.net).

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<sup>1</sup>This is obtained after invoking the  $\text{\largerSkips}$  command.