

Sample document

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1 LAlignAnd

$$\begin{array}{ll} \& = & \begin{array}{l} a = b \\ c = d \end{array} & \text{ok} \\ \\ = \& & \begin{array}{l} a = b \\ c = d \end{array} & \text{ng} \\ \\ = \{\}\& & \begin{array}{l} a = b \\ c = d \end{array} & \text{ok} \end{array}$$

2 LAlignEnd

The following ends with a line break.

$$\begin{array}{l} f(x) = ax^2 + bx + c \\ g(x) = dx^2 + ex + f \end{array}$$

The following does not end with a line break.

$$\begin{array}{l} f(x) = ax^2 + bx + c \\ g(x) = dx^2 + ex + f \end{array}$$

Here is the next line after the align environment.

3 LAlignSingleLine

— Long line before display (same result) —

Lorem ipsum.

$$f(x) = ax^2 + bx + c$$

This is an **equation** environment.

Lorem ipsum.

$$f(x) = ax^2 + bx + c$$

This is an **align** environment.

— Short line before display (different result) —

Lrm:

$$f(x) = ax^2 + bx + c$$

This is an **equation** environment.

Lrm:

$$f(x) = ax^2 + bx + c$$

This is an **align** environment.

Single-line alignat environment is also detected.

$$f(x) = ax^2 + bx + c$$

Multi-line alignat environment is not detected.

$$f(x) = ax^2 + bx + c$$

$$g(x) = dx^2 + ex + f$$

4 LLColonEqq

$x := y$	$x := y$	ng
$x \backslash coloneqq y$	$x := y$	ok
$x ::= y$	$x ::= y$	ng
$x \backslash Coloneqq y$	$x ::= y$	ok

5 LLColonForMapping

$A : B$	$A : B$	ok
$A \backslash colon B$	$A : B$	ng
$f : \mathbb{R} \rightarrow \mathbb{R}$	$f : \mathbb{R} \rightarrow \mathbb{R}$	ng
$f \backslash colon \mathbb{R} \rightarrow \mathbb{R}$	$f : \mathbb{R} \rightarrow \mathbb{R}$	ok

— We detect all of : in the following —

Here are examples of colons we detect.

- $X : Y \rightarrow Z$,
- $X : Y \mapsto Z$,
- $X : \mathbb{R}^{n^2+2n+1} \rightarrow \mathbb{R}$

and

$$X : (Y \text{ at new line in tex file}) \rightarrow (Z \text{ at new line in tex file}). \quad (1)$$

———— We do NOT detect any of : in the following ————

Here are examples of ‘:’ we do not detect.

- $X : Y \rightarrow Z$, the correct use of colon.
- $A : B : C = 1 : 2 : 3$, the colon for ratio.
- $A : B = 1 : 2$ and $\alpha \rightarrow \beta$, separated by dollar sign.
- $f :$ (some very very very very very long long long long words) $\rightarrow \mathbb{R}$, the false negative.

6 LLCref

Theorem 1. *This is a sample theorem.*

Use Thm. 1 with cref instead of Theorem 1 with ref to avoid mistakes.

7 LLDoubleQuotes

Use “XXX” instead of “XXX” or ”XXX”.

8 LLENDash

- Erdos-Renyi (random graph, Erdős–Rényi)
- Einstein-Podolsky-Rosen (quantum physics, Einstein–Podolsky–Rosen)
- Fruchterman-Reingold (graph drawing, Fruchterman–Reingold)
- Gauss-Legendre (numerical integration, Gauss–Legendre)
- Gibbs-Helmholtz (thermodynamics, Gibbs–Helmholtz)
- Karush-Kuhn-Tucker (optimization, Karush–Kuhn–Tucker)

Exception: Fritz-John (optimization, name of a person)

False Positive: Wrong-Example

9 LLEqnarray

We should not use eqnarray. It has some spacing issues.

$$x = y \tag{2}$$

$$a = b \tag{3}$$

10 LLLlGg

$n \ll m$ $n \ll m$ ok
 $n << m$ $n << m$ ng

I like human <<< cat <<<<<<< dog.

11 LLRefEq

To refer to the equation, use (1) with eqref instead of (1) with ref.
You can avoid the mistakes of forgetting to add parentheses.

12 LLSharp

$\#$ $\#A$ ok
 \sharp $\sharp A$ ng

13 LLNonASCII

The following line contains non-ASCII characters.

! " # \$ % & ' () * + , - . /

日本語の文章は、upLaTeX でフツウに書けます。

(You can write Japanese sentences as usual with upLaTeX.)

14 LLSI

Example: 10 KB, 3.5MiB, 500 GB.

Some Awesome Command.This is not ExaByte..

This 1EB is one ExaByte.

15 LLT

X^T X^\top X^\top

16 LLTitle

16.1 The quick brown fox jumps over the lazy dog

16.1.1 This Is a Correct Title

SubParagraph: Test With Ref 1

17 LLUserDefined

You can define your own rule, such as prohibiting the use of a f^a.

$$f^a(X) \quad f^a(X)$$