



# A $\text{\LaTeX}$ Template, 一个 $\text{\LaTeX}$ 模板

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LCS27

Overleaf 模板作者

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## 1 中英法三语支持

## 2 Mathematic Tools :LCS27symbols

这是一个中文 - 英语 - 法语混排的多语言模板。

C'est un template multilingue pour l'utilisation chinois-anglais-français.

This is a multilingual template for chinese-english-french.

This template is based on XeLaTeX interpreter.

This work is written in 2021-2022 by LCS27. It is released under the CC0 1.0

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**1** 中英法三语支持

**2** Mathematic Tools :LCS27symbols



# Regrouping powerful mathematic packages!

Many mathematical symbols are defined by multiple  $\text{\LaTeX}$  packages, the package LCS27symbols regroups them!

- `amsmath` : basic mathematic packages, providing format such as mathematic symbols and equations.
- `amsfonts` : mathematic fonts.
- `mathrsfs` : mathematic fonts.
- `bbm` : mathematic fonts.
- `amsthm` : theorem environment.
- `amssymb` : advance mathematic symbols.
- `mathtools` : advance mathematic symbols.
- `siunitx` : scientific notation(E.g.To write  $2 \times 10^9$  you just need `\num{2e+9}`).
- `stmaryrd` : binary operator symbols.

For a quick-check webpage, you can go to

[https://oeis.org/wiki/List\\_of\\_LaTeX\\_mathematical\\_symbols](https://oeis.org/wiki/List_of_LaTeX_mathematical_symbols).



# Mathematic Tools :LCS27symbols

## Autodefined symbols

The package LCS27symbols also defines several symbols, especially useful for mechanic fields!

<code>\deri{a}{b}</code>	$\frac{da}{db}$
<code>\deriN{a}{b}{n}</code>	$\frac{d^n a}{db^n}$
<code>\ParDeri{a}{b}</code>	$\frac{\partial a}{\partial b}$
<code>\ParDeriN{a}{b}{n}</code>	$\frac{\partial^n a}{\partial b^n}$
<code>\Deri{a}{b}</code>	$\frac{Da}{Db}$
<code>\DeriN{a}{b}{n}</code>	$\frac{D^n a}{Db^n}$
<code>a\laplace b</code>	$a \triangle b$
<code>\abs \scalair \bbs</code>	$a \cdot b$
<code>a\nabla b, \cbs \nabla labs \dbs</code>	$a \nabla b, c \nabla d$
<code>\ssi, \iff</code>	$\Longleftrightarrow, \iff$



# Mathematic Tools :LCS27symbols

## Autodefined symbols

The package LCS27symbols also defines several symbols, especially useful for mechanic files!

$\backslash Abb$	$\backslash gbb$	$\backslash Onebb$	$\mathbb{A}g1$
$\backslash Abf$	$\backslash bbf$	$\backslash Onebf$	<b>Ab1</b>
$\backslash Abs$	$\backslash bbs$	$\backslash Gammabs$	$\delta, \varphi, \nabla$
$\backslash deltab$	$\backslash varphi$	$\backslash nabla$	$\bar{A}, \bar{b}, \bar{\Gamma}, \bar{\delta}, \bar{\varphi}, \bar{\nabla}, \bar{1}$
$\backslash Ao$	$\backslash bo$	$\backslash Gammao$	$\overline{\bar{A}}, \overline{\bar{b}}, \overline{\bar{\Gamma}}, \overline{\bar{\delta}}, \overline{\bar{\varphi}}, \overline{\bar{\nabla}}, \overline{\bar{1}}$
$\backslash deltao$	$\backslash arphio$	$\backslash nablao$	$\underline{A}, \underline{b}, \underline{\Gamma}, \underline{\delta}, \underline{\varphi}, \underline{\nabla}, \underline{1}$
$\backslash Oneo$			$\underline{\underline{A}}, \underline{\underline{b}}, \underline{\underline{\Gamma}}, \underline{\underline{\delta}}, \underline{\underline{\varphi}}, \underline{\underline{\nabla}}, \underline{\underline{1}}$
$\backslash Aoo$	$\backslash boo$	$\backslash Gammaoo$	$\mathcal{A}$
$\backslash deltaoo$	$\backslash varphioo$	$\backslash nablao$	$\mathbb{R}, \mathbb{C}, \mathbb{N}, \mathbb{Z}, \mathbb{R} \times \mathbb{R}$
$\backslash Oneoo$			$\mathcal{R}$
$\backslash Ad$	$\backslash bd$	$\backslash Gammad$	
$\backslash deltad$	$\backslash varphid$	$\backslash nabladd$	
$\backslash Oned$			
$\backslash Add$	$\backslash bdd$	$\backslash Gammadd$	
$\backslash deltadd$	$\backslash varphidd$	$\backslash nabladd$	
$\backslash Onedd$			
$\backslash Acal$			
$\backslash setR$	$\backslash setC$	$\backslash setN$	
$\backslash setZ$	$\backslash setRR$		
$\backslash rel$			





# Mathematic Tools :LCS27symbols

## Autodefined symbols

The package LCS27symbols also defines several symbols, especially useful for mechanic fields!

$\backslash eg, \backslash Eg$	e.g., E.g.
$\backslash ie, \backslash Ie$	i.e., I.e.
$\backslash cf, \backslash Cf$	c.f., C.f.
$\backslash etc, \backslash vs, \backslash wrt, \backslash dof$	etc., vs., w.r.t., d.o.f.
$\backslash etal, \backslash resp, \backslash st, \backslash aka, \backslash abr$	et al., resp., s.t., a.k.a., abr.
$\backslash tsum$	$\sum$
$\backslash grad \backslash xbs$	$\nabla_x$
$\backslash norm\{a\}$	$\ a\ $
$\backslash Intv\{a\}\{b\}$	$[a, b]$
$\backslash IntIntv\{a\}\{b\}$	$\llbracket a, b \rrbracket$
$\backslash UpperInt\{a\}$	$\lceil a \rceil$
$\backslash LowerInt\{a\}$	$\lfloor a \rfloor$



北京航空航天大学  
BEIHANG UNIVERSITY



# 谢谢! Thank you! Merci!

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