Liii STEM Input Method Cheatsheet

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Liii STEM (https://liiistem.cn/) is a WYSIWYG editor that can speed up your mathematical writing by 10x. See Quick formula editing for more details. This is a pdf version cheatsheet of the keys available in Liii STEM Input Method.

Unlike the shorcut hints inside Liii STEM. We distinguish the capital and noncapital letters in this cheatsheet; For example, J and j are different. We also use ⇧j to replace J where ⇧ represents the Shift *key.*

When no plus sign is shown between different keyboard keys, it means they should be pressed in sequence. Alternatively, a plus sign between them means they should be pressed at the same time.

For modifier keys (and their combination such as ctrl⇧) ⇧, ctrl, alt (Windows) or option (Mac), and cmd (Mac), the plus sign after them means to hold down the modifier key while pressing the next key. For example, ctrl + s means to hold down the ctrl key and press the s key.

All tab keys represents tab varient. For example, to insert ∇, press ⇧v and press tab twice. To insert Φ, press ⇧v and press tab once. In the rest of this tutorial, we do specify the exact number of tab we used, i.e., the keyboard expression for both ∇ and Φ is shift v + tab.

Windows / GNU/Linux	Mac	Equivalent in LaTeX
Environmental Shortcuts		
space + tab	space + tab	Non-breaking space (\nbsp or ~)
ctrl + t	\	\indent
ctrl + l	\	\raggedleft
ctrl + e	\	\centering
ctrl + r	\	\raggedright
alt + 1	option + 1	\section
alt + 2	option + 2	\subsection
alt + 3	option + 3	\subsubsection
alt + 4	option + 4	\paragraph
alt + 5	option + 5	\subparagraph
alt + 6	option + 6	\appendix
+ + tab	+ + tab	\itemize
1 + . + tab	1 + . + tab	\enumerate
$	$	inline math mode
alt + $	option + $	single-line math mode

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Windows / GNU/Linux	Mac	Equivalent in LaTeX
alt + &	option + &	multi-line math: eqnarray
ctrl + $	ctrl + $	multi-line math: align
ctrl + #	ctrl + #	add equation number
alt + arrow	option + arrow	add new row/column in *matrix/table/choice/stack*
ctrl⇧ + f	ctrl⇧ + f	add footnote
ctrl + n	cmd + n	add new script
ctrl + p	cmd + p	export to PDF
Common Constructs		
x + ^ + 2	x + ^ + 2	x^2 (x^2)
x + _ + i + , + j	x + _ + i + , + j	$x_{i,j}$ (x_{i,j})
alt + s + 2	option + s + 2	$\sqrt{2}$ (\sqrt{2})
alt + s + Tab + 3 + ← + ← + n	option + s + Tab + 3 + ← + ← + n	$\sqrt[n]{3}$ (\sqrt[n]{3})
alt + f	option + f	$\frac{2}{3}$ (\frac{2}{3})
Font		
A + A	A + A	Blackground $\mathbb{A}$ (\mathbb{A})
F7 + A or A + A + tab	F7 + A or A + A + tab	Calligraphic $\mathcal{A}$ (\mathcal{A})
F8 + A or A + A + tab	F8 + A or A + A + tab	Gothic $\mathfrak{A}$ (\mathfrak{A})
ctrl + b + A or A + A + tab	cmd + b + A or A + A + tab	Bold $\mathbf{A}$ (\mathbf{A})
ctrl + i + A	cmd + i + A	Italic A (\mathit{A})
Greek Letters		
a + tab	a + tab	α (\alpha)
b + tab	b + tab	β (\beta)
g + tab, G + tab	g + tab, G + tab	γ (\gamma), Γ (\Gamma)
d + tab, D + tab	d + tab, D + tab	δ (\delta), Δ (\Delta)
e + tab	e + tab	ϵ (\epsilon)
e + tab	e + tab	ε (\varepsilon)
z + tab	z + tab	ζ (\zeta)

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Windows / GNU/Linux	Mac	Equivalent in LaTeX
h + tab	h + tab	η (\eta)
j + tab, J + tab	j + tab, J + tab	θ (\theta), Θ (\Theta)
j + tab	j + tab	ϑ (\vartheta)
i + tab	i + tab	ι (\iota)
k + tab	k + tab	κ (\kappa)
l + tab, L + tab	l + tab, L + tab	λ (\lambda), Λ (\Lambda)
m + tab	m + tab	μ (\mu)
n + tab	n + tab	ν (\nu)
x + tab, X + tab	x + tab, X + tab	ξ (\xi), Ξ (\Xi)
p + tab, P + tab	p + tab, P + tab	π (\pi), Π (\Pi)
p + tab	p + tab	ϖ (\varpi)
r + tab	r + tab	ρ (\rho)
r + tab	r + tab	ϱ (\varrho)
s + tab, S + tab	s + tab, S + tab	σ (\sigma), Σ (\Sigma)
s + tab	s + tab	ς (\varsigma)
t + tab	t + tab	τ (\tau)
u + tab, U + tab	u + tab, U + tab	υ (\upsilon), Υ (\Upsilon)
f + tab, F + tab	f + tab, F + tab	ϕ (\phi), Φ (\Phi)
f + tab	f + tab	φ (\varphi)
q + tab	q + tab	χ ($\chi $)
y + tab, Y + tab	y + tab, Y + tab	ψ (\psi), Ψ (\Psi)
w + tab, W + tab	w + tab, W + tab	ω (\omega), Ω (\Omega)
Sets and Logic		
% + tab	% + tab	$\cup$ (\cup)
& + tab	& + tab	$\cap$ (\cap)
< + tab	< + tab	$\subset$ (\subset)
< + tab + =	< + tab + =	$\subseteq$ (\subseteq)
> + tab	> + tab	$\supset$ (\supset)

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Windows / GNU/Linux	Mac	Equivalent in LaTeX
> + tab + =	> + tab + =	$\supseteq$ (\supseteq)
< + tab	< + tab	$\in$ (\in)
> + tab	> + tab	$\ni$ (\ni)
< + tab + /	< + tab + /	$\notin$ (\notin)
R + R	R + R	$\mathbb{R}$ (\mathbb{R})
Z + Z	Z + Z	$\mathbb{Z}$ (\mathbb{Z})
Q + Q	Q + Q	$\mathbb{Q}$ (\mathbb{Q})
N + N	N + N	$\mathbb{N}$ (\mathbb{N})
C + C	C + C	$\mathbb{C}$ (\mathbb{C})
@ + /	@ + /	$\varnothing$ (\varnothing)
A + tab	A + tab	$\aleph$ (\aleph)
= + tab	= + tab	$\equiv$ (\equiv)
A + tab	A + tab	$\forall$ (\forall)
E + tab	E + tab	$\exists$ (\exists)
! + tab	! + tab	$\neg$ (\neg)
%	%	$\vee$ (\vee)
&	&	$\wedge$ (\wedge)
| + tab + -	| + tab + -	$\vdash$ (\vdash)
| + tab + =	| + tab + =	$\models$ (\models)
= + >	= + >	$\Rightarrow$ (\Rightarrow)
= + > + /	= + > + /	$\nRightarrow$ (\nRightarrow)
Decorations		
alt + ˙ + A	option + ˙ + A	$\dot{A}$ (\dot{A})
alt + " + A	option + " + A	$\ddot{A}$ (\ddot{A})
alt + ˙ + ˙ + A	option + ˙ + ˙ + A	vertical two dots
alt + " + tab + A	option + " + tab + A	horizontal three dots
alt + " + tab + A	option + " + tab + A	horizontal four dots
alt + ^ + A	option + ^ + A	$\hat{A}$ (\hat{A})

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Windows / GNU/Linux	Mac	Equivalent in LaTeX
alt + ~ + A	option + ~ + A	$\tilde{A}$ (\tilde{A})
alt ⇧ + b + A	option ⇧ + b + A	$\bar{A}$ (\bar{A})
alt + - + A	option + - + A	$\overline{A}$ (\overline{A})
ctrl + u + A	ctrl + u + A	$\underline{A}$ (\underline{A})
alt ⇧ + v + A	option ⇧ + v + A	$\vec{A}$ (\vec{A})
alt ⇧ + c + A	option ⇧ + c + A	$\check{A}$ (\check{A})
alt ⇧ + u + A	option ⇧ + u + A	$\breve{A}$ (\breve{A})
alt ⇧ + a + A	option ⇧ + a + A	inverted breve
alt + ´ + A	option + ´ + A	$\acute{A}$ (\acute{A})
alt + @ + A	option + @ + A	$\mathring{A}$ (\mathring{A})
Dots		
. + .	. + .	… (\ldots)
. + . + Tab	. + . + Tab	⋯ (\cdots)
. + . + Tab	. + . + Tab	high dots
. + . + Tab	. + . + Tab	⋮ (\vdots)
. + . + Tab	. + . + Tab	⋱ (\ddots)
. + . + Tab	. + . + Tab	back-diagonal dots
Other Symbols		
< + = + tab	< + = + tab	$\leq$ (\leq)
> + = + tab	> + = + tab	$\geq$ (\geq)
= + \	= + \	$\neq$ (\neq)
< + <	< + <	$\ll$ (\ll)
> + >	> + >	$\gg$ (\gg)
~ + ~	~ + ~	$\approx$ (\approx)
= + tab	= + tab	$\asymp$ (\asymp)
< + tab	< + tab	$\prec$ (\prec)
< + tab + = + tab	< + tab + = + tab	$\preceq$ (\preceq)
> + tab	> + tab	$\succ$ (\succ)

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Windows / GNU/Linux	Mac	Equivalent in LaTeX
> + tab + = + tab	> + tab + = + tab	$\succeq$ (\succeq)
@ + @ + tab	@ + @ + tab	$\propto$ (\propto)
. + =	. + =	$\doteq$ (\doteq)
@ + tab	@ + tab	$\angle$ (\angle)
l + tab	l + tab	ℓ (\ell)
⇧ + F5 + B	⇧ + F5 + B	$\parallel$ (\parallel)
~ + =	~ + =	$\cong$ (\cong)
~ + = + /	~ + = + /	$\ncong$ (\ncong)
~	~	$\sim$ (\sim)
~ + -	~ + -	$\simeq$ (\simeq)
~ + /	~ + /	$\nsim$ (\nsim)
@ + +	@ + +	$\oplus$ (\oplus)
@ + -	@ + -	$\ominus$ (\ominus)
@ + .	@ + .	$\odot$ (\odot)
@ + *	@ + *	$\otimes$ (\otimes)
@ + /	@ + /	$\oslash$ (\oslash)
/ + - + tab	/ + - + tab	$\upharpoonright$ (\upharpoonright)
. + tab	* + tab	$\cdot$ (\cdot)
+ + -	+ + -	$\pm$ (\pm)
- + +	- + +	$\mp$ (\mp)
* + tab	* + tab	$\times$ (\times)
/ + tab	/ + tab	$\div$ (\div)
* + tab	* + tab	$*$ (\ast)
d + tab	d + tab	∂ (\partial)
V + tab	V + tab	∇ (\nabla)
@	@	$\circ$ (\circ)
* + tab	* + tab	$\star$ (\star)
i + tab	i + tab	$\imath$ (\imath)

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Windows / GNU/Linux	Mac	Equivalent in LaTeX
j + tab	j + tab	$\jmath$ (\jmath)
h + tab	h + tab	$\hbar$ (\hbar)
B + tab	B + tab	$\beth$ (\beth)
G + tab	G + tab	$\gimel$ (\gimel)
D + tab	D + tab	$\daleth$ (\daleth)
R + E	R + E	$\Re$ (\Re)
W + tab	W + tab	$\mho$ (\mho)
P + tab	P + tab	$\wp$ (\wp)
@ + @	@ + @	∞ (\infty in LaTeX$)
T + tab	T + tab	$\top$ (\top)
T + tab	T + tab	$\bot$ (\bot)
< + > + tab	< + > + tab	$\clubsuit$ (\clubsuit)
< + > + tab	< + > + tab	$\diamondsuit$ (\diamondsuit)
< + > + tab	< + > + tab	$\heartsuit$ (\heartsuit)
< + > + tab	< + > + tab	$\spadesuit$ (\spadesuit)
b + tab	b + tab	$\flat$ (\flat)
# + tab	# + tab	$\natural$ (\natural)
# + tab	# + tab	$\sharp$ (\sharp)
@ + = + tab	@ + = + tab	$\triangleq$ (\triangleq)
+ + tab	+ + tab	$\dagger$ (\dagger)
Variable sized operators		
I + tab	I + tab	$\int$ (\int)
I + I + tab	I + I + tab	$\iint$ (\iint)
I + I + I + tab	I + I + I + tab	$\iiint$ (\iiint)
@ + I	@ + I	$\oint$ (\oint)
U + tab	U + tab	$\bigcup$ (\bigcup)
N + tab	N + tab	$\bigcap$ (\bigcap)
Arrow		

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Windows / GNU/Linux	Mac	Equivalent in LaTeX
- + >	- + >	$\rightarrow$ (\rightarrow)
- + > + /	- + > + /	$\nrightarrow$ (\nrightarrow)
- + - + >	- + - + >	$\longrightarrow$ (\longrightarrow)
= + >	= + >	$\Rightarrow$ (\Rightarrow)
= + > + /	= + > + /	$\nRightarrow$ (\nRightarrow)
= + = + >	= + = + >	$\Longrightarrow$ (\Longrightarrow)
~ + >	~ + >	$\leadsto$ (\leadsto)
| + - + >	| + - + >	$\mapsto$ (\mapsto)
| + - + - + >	| + - + - + >	$\longmapsto$ (\longmapsto)
< + -	< + -	$\leftarrow$ (\leftarrow)
< + - + >	< + - + >	$\leftrightarrow$ (\leftrightarrow)
< + - + Tab	< + - + Tab	$\uparrow$ (\uparrow)
< + - + Tab + Tab	< + - + Tab + Tab	$\downarrow$ (\downarrow)
< + - + > + Tab	< + - + > + Tab	$\updownarrow$ (\updownarrow)
Fences		
< + Tab	< + Tab	$\langle\rangle$ (\langle\rangle)
| + .	| + .	$\lfloor\rfloor$ (\lfloor \rfloor)
| + '	| + '	$\lceil\rceil$ (\lceil \rceil)
| + |	| + |	$\|\|$ (\\| \\|)