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 + f 1 means to hold down the Ctrl key and press the f key and then press 1 in sequence.

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
alt + &	option + &	multi-line math: eqnarray
ctrl + $	ctrl + $	multi-line math: align

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Windows GNU/Linux	Mac	Equivalent in LaTeX
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	atab	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)
h tab	h tab	η (\eta)
j tab, J tab	j tab, J tab	θ (\theta), Θ (\Theta)
j tab	j tab	ϑ (\vartheta)

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Windows / GNU/Linux	Mac	Equivalent in LaTeX
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)
> tab =	> tab =	$\supseteq$ (\supseteq)
< tab	< tab	$\in$ (\in)
> tab	> tab	$\ni$ (\ni)

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Windows / GNU/Linux	Mac	Equivalent in LaTeX
< 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 + ˆ A	option + ˆ A	$\hat{A}$ (\hat{A})
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})

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Windows / GNU/Linux	Mac	Equivalent in LaTeX
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		
. .	. .	$\ldots$ (\ldots)
. . tab	. . tab	$\cdots$ (\cdots)
. . tab	. . tab	high dots
. . tab	. . tab	$\vdots$ (\vdots)
. . tab	. . tab	$\ddots$ (\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)
> tab = tab	> tab = tab	$\succeq$ (\succeq)
@@ tab	@@ tab	$\propto$ (\propto)
. =	. =	$\doteq$ (\doteq)

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Windows / GNU/Linux	Mac	Equivalent in LaTeX
@ 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)
j tab	j tab	$\jmath$ (\jmath)
h tab	h tab	$\hbar$ (\hbar)
B tab	B tab	$\beth$ (\beth)

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Windows / GNU/Linux	Mac	Equivalent in LaTeX
G tab	G tab	ג (\gimel)
D tab	D tab	ד (\daleth)
R E	R E	ℜ (\Re)
W tab	W tab	℧ (\mho)
P tab	P tab	℘ (\wp)
@ @	@ @	∞ (\infty in LaTeX$)
T tab	T tab	⊤ (\top)
T tab	T tab	⊥ (\bot)
< > tab	< > tab	♣ (\clubsuit)
< > tab	< > tab	♢ (\diamondsuit)
< > tab	< > tab	♡ (\heartsuit)
< > tab	< > tab	♠ (\spadesuit)
b tab	b tab	♭ (\flat)
# tab	# tab	♮ (\natural)
# tab	# tab	♯ (\sharp)
@ = tab	@ = tab	≜ (\triangleq)
+ tab	+ tab	† (\dagger)
Variable sized operators		
I tab	I tab	∫ (\int)
I I tab	I I tab	∬ (\iint)
I I I tab	I I I tab	∭ (\iiint)
@ I	@ I	∮ (\oint)
U tab	U tab	⋃ (\bigcup)
N tab	N tab	⋂ (\bigcap)
Arrow		
- >	- >	→ (\rightarrow)
- > /	- > /	↛ (\nrightarrow)
- - >	- - >	⟶ (\longrightarrow)

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Windows / GNU/Linux	Mac	Equivalent in LaTeX
= >	= >	⇒ (\Rightarrow)
= > /	= > /	⇏ (\nRightarrow)
= = >	= = >	⟹ (\Longrightarrow)
~ >	~ >	⇝ (\leadsto)
| - >	| - >	↦ (\mapsto)
| - - >	| - - >	⟼ (\longmapsto)
< -	< -	← (\leftarrow)
< - >	< - >	↔ (\leftrightarrow)
< - tab	< - tab	↓ (\uparrow)
< - tab	< - tab	↓ (\downarrow)
< - > tab	< - > tab	↕ (\updownarrow)
Fences		
< tab	< tab	⟨ ⟩ (\langle\rangle)
| .	| .	⌊ ⌋ (\lfloor \rfloor)
| '	| '	⌈ ⌉ (\lceil \rceil)
| |	| |	‖ ‖ (| |)