Examples of how to use `shortex.sty`

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Updated July 14, 2021

1 Brackets and bracket-like functions

You can specify a bracket size using $-1, \ldots, 4$, where -1 uses `\left` and `\right`, 0 uses nothing, and positive numbers use increasingly large fixed sizes. The default behavior is 0 when in text mode and -1 when in display mode.

Description	Example	Text style	Display style
Regular brackets (parentheses)	`\rbra{\frac{x}{y}}`	$(\frac{x}{y})$	$\left(\dfrac{x}{y}\right)$
Curly brackets	`\cbra[2]{\frac{x}{y}}`	$\bigg\{\frac{x}{y}\bigg\}$	$\bigg\{\dfrac{x}{y}\bigg\}$
Square brackets	`\sbra[4]{\frac{x}{y}}`	$\Bigg[\frac{x}{y}\Bigg]$	$\Bigg[\dfrac{x}{y}\Bigg]$

Many other bracket-like, semantic commands are also available:

Description	Example	Text style	Display style
Absolute value	`\abs{\frac{x}{y}}`	$\lvert \tfrac{x}{y} \rvert$	$\left\lvert \dfrac{x}{y} \right\rvert$
Set	`\set{\frac{x}{y}, \frac{y}{z}}`	$\{ \tfrac{x}{y}, \tfrac{y}{z} \}$	$\left\{ \dfrac{x}{y}, \dfrac{y}{z} \right\}$
Floor	`\floor{\frac{x}{y}}`	$\lfloor \tfrac{x}{y} \rfloor$	$\left\lfloor \dfrac{x}{y} \right\rfloor$
Ceiling	`\ceil{\frac{x}{y}}`	$\lceil \tfrac{x}{y} \rceil$	$\left\lceil \dfrac{x}{y} \right\rceil$
Norm	`\norm{\frac{x}{y}}`	$\lVert \tfrac{x}{y} \rVert$	$\left\lVert \dfrac{x}{y} \right\rVert$
Inner product	`\inner{\frac{x}{y}}{\frac{y}{z}}`	$\langle \tfrac{x}{y},\ \tfrac{y}{z} \rangle$	$\left\langle \dfrac{x}{y},\ \dfrac{y}{z} \right\rangle$
Cardinality	`\card{\whA}`	$\lvert \widehat{A} \rvert$	$\left\lvert \widehat{A} \right\rvert$

The norm and inner product commands also have versions with a subscript argument:

Description	Example	Text style	Display style
Norm with subscript	`\normarg{\frac{x}{y}}{2}`	$\lVert \tfrac{x}{y} \rVert_2$	$\left\lVert \dfrac{x}{y} \right\rVert_2$
Inner product with subscript	`\innerarg{\frac{x}{y}}{\frac{y}{z}}{2}`	$\langle \tfrac{x}{y},\ \tfrac{y}{z} \rangle_2$	$\left\langle \dfrac{x}{y},\ \dfrac{y}{z} \right\rangle_2$

2 L_p Spaces and Operators

Description	Example	Text style	Display style
L_p space	`\Lp{2}`	L_2	L_2
L_p space for specified measure	`\Lparg{2}{\hmu}`	$L_2(\hat{\mu})$	$L_2\left(\hat{\mu}\right)$
	`\Lparg[1]{2}{\hmu}`	$L_2\big(\hat{\mu}\big)$	$L_2\big(\hat{\mu}\big)$
L_p norm	`\Lpnorm{\hGamma}{2}`	$\|\hat{\Gamma}\|_{L_2}$	$\left\|\hat{\Gamma}\right\|_{L_2}$
	`\Lpnorm[-1]{\hGamma}{2}`	$\left\|\hat{\Gamma}\right\|_{L_2}$	$\left\|\hat{\Gamma}\right\|_{L_2}$
L_p norm for specified measure	`\Lpnormarg{\hGamma}{2}{\hmu}`	$\|\hat{\Gamma}\|_{L_2(\hat{\mu})}$	$\left\|\hat{\Gamma}\right\|_{L_2(\hat{\mu})}$
	`\Lpnormarg[1]{\hGamma}{2}{\hmu}`	$\big\|\hat{\Gamma}\big\|_{L_2(\hat{\mu})}$	$\big\|\hat{\Gamma}\big\|_{L_2(\hat{\mu})}$
L_p inner product	`\Lpinner{\hGamma}{\Gamma}{2}`	$\langle\hat{\Gamma},\ \Gamma\rangle_{L_2}$	$\left\langle\hat{\Gamma},\ \Gamma\right\rangle_{L_2}$
	`\Lpinner[-1]{\hGamma}{\Gamma}{2}`	$\left\langle\hat{\Gamma},\ \Gamma\right\rangle_{L_2}$	$\left\langle\hat{\Gamma},\ \Gamma\right\rangle_{L_2}$
L_p inner product for specified measure	`\Lpinnerarg{\hGamma}{\Gamma}{2}{\hmu}`	$\langle\hat{\Gamma},\ \Gamma\rangle_{L_2(\hat{\mu})}$	$\left\langle\hat{\Gamma},\ \Gamma\right\rangle_{L_2(\hat{\mu})}$
	`\Lpinnerarg[1]{\hGamma}{\Gamma}{2}{\hmu}`	$\big\langle\hat{\Gamma},\ \Gamma\big\rangle_{L_2(\hat{\mu})}$	$\big\langle\hat{\Gamma},\ \Gamma\big\rangle_{L_2(\hat{\mu})}$

3 annotation commands

`\barA`	$\bar{A}$
`\bara`	$\bar{a}$
`\bA`	$\bar{A}$
`\bB`	$\bar{B}$
`\balpha`	$\bar{\alpha}$
`\bGamma`	$\bar{\Gamma}$
`\mcA`	$\mathcal{A}$
`\hmcA`	$\hat{\mathcal{A}}$
`\mfA`	$\mathfrak{A}$
`\mfa`	$\mathfrak{a}$
`\bmfA`	$\mathfrak{A}$
`\bmfa`	$\mathfrak{a}$
`\hA`	$\hat{A}$
`\ha`	$\hat{a}$
`\halpha`	$\hat{\alpha}$
`\hGamma`	$\hat{\Gamma}$
`\bhA`	$\hat{\mathbf{A}}$
`\bha`	$\hat{\mathbf{a}}$
`\bhalpha`	$\hat{\alpha}$
`\bhGamma`	$\hat{\mathbf{\Gamma}}$
`\whA`	$\widehat{A}$
`\wha`	$\widehat{a}$
`\tdA`	$\tilde{A}$
`\tda`	$\tilde{a}$
`\tdalpha`	$\tilde{\alpha}$
`\tdGamma`	$\tilde{\Gamma}$
`\btdA`	$\tilde{\mathbf{A}}$
`\btda`	$\tilde{\mathbf{a}}$
`\btdalpha`	$\tilde{\alpha}$
`\btdGamma`	$\tilde{\mathbf{\Gamma}}$
`\biA`	$\boldsymbol{A}$
`\bia`	$\boldsymbol{a}$
`\bhiA`	$\hat{\boldsymbol{A}}$
`\bhia`	$\hat{\boldsymbol{a}}$