

Cheat sheet: config.tex, Ver: June 21, 2018

References

<i>command</i>	<i>output</i>	<i>command</i>	<i>output</i>
\Figref{}	Figure ??	\Secref{}	Section ??
\Eqref{}	Equation (??)	\Algo ref{}	Algorithm ??
\Defref{}	Definition ??	\Thmref{}	Theorem ??
\Lemref{}	Lemma ??	\Cororef{}	Corollary ??
\Propref{}	Proposition ??		

Fonts

<i>command</i>	<i>output</i>	<i>command</i>	<i>output</i>
\bfa	a	\bfz	z
\bfA	A	\bfZ	Z
\bbA	A	\bbZ	Z
\ccA	<i>A</i>	\ccZ	<i>Z</i>

Greek letter

<i>command</i>	<i>output</i>	<i>command</i>	<i>output</i>
\alpha	α	\bfalpha	α
\beta	β	\bfbeta	β
\gamma	γ	\bfgamma	γ
\Gamma	Γ	\bfGamma	Γ
\delta	δ	\bfdelta	δ
\Delta	Δ	\bfDelta	Δ
\eps	ε	\bfeps	ε
\zeta	ζ	\bfzeta	ζ
\eta	η	\bfeta	η
\theta	θ	\bftheta	θ
\Theta	Θ	\bfTheta	Θ
\iota	ι	\bfiota	ι
\kappa	κ	\bfkappa	κ
\lambda	λ	\bflambda	λ
\Lambda	Λ	\bfLambda	Λ
\mu	μ	\bfmu	μ
\nu	ν	\bfnu	ν
\xi	ξ	\bfxi	ξ
\Xi	Ξ	\bfXi	Ξ
\pi	π	\bfpi	π
\Pi	Π	\bfPi	Π
\rho	ρ	\bfrho	ρ
\sigma	σ	\bfsigma	σ
\Sigma	Σ	\bfSigma	Σ
\tau	τ	\bftau	τ
\upsilon	υ	\bfupsilon	υ
\Upsilon	Υ	\bfUpsilon	Υ
\varphi	φ	\bffy	φ
\Phi	Φ	\bfPhi	Φ
\chi	χ	\bfchi	χ
\psi	ψ	\bfpsi	ψ
\Psi	Ψ	\bfPsi	Ψ
\omega	ω	\bfomega	ω
\Omega	Ω	\bfOmega	Ω

Mathematical notations

Basic

<i>command</i>	<i>output</i>	<i>command</i>	<i>output</i>
\RE	Re	\IM	Im
\Tr	Tr	\GL	GL
\rank	rank	\argmin	argmin
\argmax	argmax	\p(x)	$P(x)$
\Var	Var	\Cov	Cov
\DKL	D_{KL}	\DTV	D_{TV}
\Df	D_f	\Dalpha	D_α
\grad	∇	\dd x	dx
\pdd x	∂x		

Auto-adjust size

<i>command</i>	<i>output</i>
\set{x}	$\{x\}$
\ceil{x}	$\lceil x \rceil$
\floor{x}	$\lfloor x \rfloor$
\norm{x}	$\ x\ $
\abs{x}	$ x $
\paren{x}	(x)
\sbrak{x}	$[x]$
\dotp{a}{b}	$a \cdot b$
\inner{a}{b}	$\langle a, b \rangle$
\outerp{x}	xx^T
\outerpp{x-b}	$(x-b)(x-b)^T$
\tr{x}	$\text{Tr}(x)$
\Exp{x}{a}	$\mathbb{E}_a[x]$
\CondExp{x}{y}{a}	$\mathbb{E}_a[x y]$
\KL{P}{Q}	$D_{\text{KL}}(P\ Q)$
\KLmax{P}{Q}	$D_{\text{KL}}^{\max}(P\ Q)$
\minimize{x}{a}	minimize x
\maximize{x}{a}	maximize x
\subto{x}	subject to x
\ddfrac{x}{y}	$\frac{dx}{dy}$
\ddfracc{x}	$\frac{d}{dx}$
\pfrac{x}{y}	$\frac{\partial x}{\partial y}$
\pfracc{x}	$\frac{\partial}{\partial x}$
\avgsum{x}{1}{N}	$\frac{1}{N} \sum_{x=1}^N$
\indicator{x=a}	$\mathbb{1}(x=a)$
\quaform{x}{A}	$x^T A x$
\quaforms{x-y}{A}	$(x-y)^T A (x-y)$