latex-math Macros

compiled: 2021-10-17

Latex macros like **\frac{#1}{#2}** with arguments are displayed as $\frac{\#1}{\#2}.$

${\bf Contents}$

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basic-math

Macro	Notation	Comment
\N	IN	
\Z	${\mathbb Z}$	Z, integers
\ Q	\mathbb{Q}	Q, rationals
\R	${\mathbb R}$	R, reals
\C	\mathbb{C}	
\continuous	$\mathcal C$	C, space of continuous functions
\M	$\mathcal M$	machine numbers
\epsm	ϵ_m	maximum error
\xt	$ ilde{x}$	x tilde
\sign	sign	sign, signum
\I	I	I, indicator
\Ind	1	1, indicator
	\mathcal{O}	
\order	∂#1	O, order
\fp	$\frac{\partial \frac{1}{2}}{\partial \# 2}$	partial derivative
\pd	$\frac{\partial \#1}{\partial \#2}$	partial derivative
\sumin	$\sum_{i=1}^{\infty}$	summation from $i=1$ to n
\sumjp	$\sum_{i=1}^{\frac{n}{2}} \sum_{j=1}^{k} \sum_{i=1}^{k} \sum_{j=1}^{k} \sum_{j=1}^{g} \sum_{j=1}^{g$	summation from $j=1$ to p
\sumik	$\sum_{i=1}^{k}$	summation from $i=1$ to k
\sumkg	$\sum_{k=1}^{g}$	summation from k=1 to g
\sumjg	$\sum_{j=1}^{g}$	summation from j=1 to g
\meanin	$\frac{1}{n} \sum_{i=1}^{n}$	mean from $i=1$ to n
\meankg	$\frac{1}{g} \sum_{k=1}^{g}$	mean from k=1 to g
\prodin	$\prod_{i=1}^{n}$	product from $i=1$ to n
\prodkg	$ \prod_{k=1}^{i=1} \prod_{p} $	product from k=1 to g
\prodjp	$\prod_{j=1}^{p}$	product from $j=1$ to p
\one	1	1, unitvector
\zero	0	0-vector
\id	I	I, identity
\diag	diag	diag, diagonal
\trace	tr	tr, trace
\spn	span	span
\scp	$\langle #1, #2 \rangle$	<.,.>, scalarproduct
\Amat	\mathbf{A}	matrix A
\xv	x	vector x (bold)
\xtil	$\tilde{\mathbf{x}}$	vector x-tilde (bold)
/xb	X	WE SHOULD NOT USE THIS
\yv		vector y (bold)
\Deltab	$oldsymbol{\Delta}$	error term for vectors
\E	\mathbb{E}	E, expectation
\var	ı⊵ Var	Var, variance
/cov	Cov	Cov, covariance

\corr	Corr	Corr, correlation
\normal	$\mathcal N$	N of the normal distribution
\iid	$\overset{i.i.d}{\sim}$	dist with i.i.d superscript
\distas	$\overset{\#1}{\sim}$	is distributed as
\ind	\perp	$ _{-}$, is independent of