# abaisero.sty

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### 1 Commands

### Option [math]

Symbol	Command	Description
$\mathbb{Z}$	$\setminus$ naturalset	the set of natural numbers
$\mathbb{R}$	$\backslash { t realset}$	the set of real numbers
$\operatorname{sign}$	$\setminus \mathtt{sign}$	
$\operatorname{softmax}$	$\setminus \mathtt{softmax}$	
$\operatorname{softmin}$	$\setminus \mathtt{softmin}$	

### Option [linalg]

Symbol	Command	Description
diag	\diag	
$\operatorname{rank}$	\rank	
$\operatorname{tr}$	$ackslash  exttt{trace}$	
col	ackslashcolspace	
ker	$\null$ space	Nullspace (a.k.a kernel) of a linear mapping
span	$\setminus$ spanspace	
Т	\T	Transpose superscript
-1	\I	Inverse superscript
+	\PI	Pseudo-inverse superscript
-T	\IT	Inverse transpose superscript
+T	\PIT	Pseudo-inverse transpose superscript

### Option [optim]

Symbol	Command	Description
argmax argmin *	\argmax \argmin \opt	Optimality superscript

# Option [stats]

Symbol	Command	Description
$\mathbb{C}$	\Cov	Covariance
$\mathbb{H}$	$\setminus \mathtt{Ent}$	Entropy
$\mathbb E$	\Exp	Expectation
${\mathbb I}$	$\setminus \mathtt{Ind}$	indicator function
KL	$\backslash \mathtt{KL}$	KL-divergence
$\mathrm{D_{KL}}$	$\backslash \mathtt{DKL}$	KL-divergence (alternative)
$\mathbb{I}$	\MI	Mutual Information
$\mathbb{V}$	$ackslash  exttt{Var}$	Variance

# Option [dists]

Symbol	Command	Description
Categorical	\Categorical	Categorical
Dirichlet	\Dirichlet	Dirichlet
Normal	$\backslash \mathtt{Normal}$	Normal
Uniform	$\backslash \mathtt{Uniform}$	Uniform

# Option [ml]

Symbol	Command	Description
${\cal D}$	$\backslash \mathtt{data}$	Data set
${\cal L}$	loss	Loss function
nll	\nl1	Neg-log-likelihood
MSE	$\backslash \mathtt{mse}$	Mean-squared-error

# Option [rl]

Symbol	Command	Description
$\mathcal{A}$	\aset	Action set
${\cal B}$	bset	Belief set
${\cal H}$	\hset	History set
$\mathcal{O}$	ackslashoset	Observation set
${\cal R}$	$ackslash  ext{rset}$	Reward set
${\mathcal S}$	ackslashsset	State set
D	$\backslash  exttt{dfn}$	Dynamics function
O	$\setminus \mathtt{ofn}$	Observation function
R	$ackslash  exttt{rfn}$	Reward function
${ m T}$	$\backslash  exttt{tfn}$	Transition function