# abaisero.sty

Andrea Baisero

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## Option [math]

| Symbol | Command | Description |
|---|---|---|
| $\mathbb{Z}$ | \naturalset | the set of natural numbers |
| $\mathbb{R}$ | \realset | the set of real numbers |
| sign | \sign | |
| softmax | \softmax | |
| softmin | \softmin | |

## Option [linalg]

| Symbol | Command | Description |
|---|---|---|
| diag | \diag | |
| rank | \rank | |
| tr | \trace | |
| col | \colspace | |
| span | \spanspace | |
| $\top$ | \T | Transpose |
| $-1$ | \I | Inverse |
| $+$ | \PI | Pseudo-inverse |
| $-\top$ | \IT | Inverse transpose |

## Option [optim]

| Symbol | Command | Description |
|---|---|---|
| argmax | \argmax | |
| argmin | \argmin | |

# Option [stats]

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

# Option [dists]

| Symbol | Command | Description |
|---|---|---|
| Categorical | \Categorical | Categorical |
| Dirichlet | \Dirichlet | Dirichlet |
| Normal | \Normal | Normal |
| Uniform | \Uniform | Uniform |

# Option [ml]

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

# Option [rl]

| Symbol | Command | Description |
|---|---|---|
| $\mathcal{A}$ | \aset | Action set |
| $\mathcal{B}$ | \bset | Belief set |
| $\mathcal{H}$ | \hset | History set |
| $\mathcal{O}$ | \oset | Observation set |
| $\mathcal{R}$ | \rset | Reward set |
| $\mathcal{S}$ | \sset | State set |
| D | \dfn | Dynamics function |
| O | \ofn | Observation function |
| R | \rfn | Reward function |
| T | \tfn | Transition function |