

Incanter Cheat Sheet

Functions and Macros Overview

Documentation (<http://incanter.org/docs/api>)
doc find-doc source (clojure.contrib.repl-utils)

Charts and Plots (incanter.charts)

Common Functions

Appearance: clear-background set-alpha
set-background set-title
set-x-label set-y-label
View: view
Save PNG: save

XY Plots

Create: xy-plot scatter-plot
Add data: add-lines add-points add-function
Annotate: add-points add-polygon, add-text

Category Charts

Create: bar-chart line-chart
Add data: add-category

Histograms

Create: histogram
Add data: add-histogram add-lines
add-function

Box Plots

Create: box-plot
Add data: add-box-plot

Misc. Plots

Create: qq-plot trace-plot bland-altman-plot

Matrices and Vectors (incanter.core)

Create: matrix diag identity-matrix
symmetric-matrix
bind-columns bind-rows
to-matrix
Properties: dim ncol nrow rank
condition matrix?
Selection: sel diag group-by
Element-wise ops: plus minus mult div exp log
log10 log2 pow sin cos tan
asin acos atan abs
Matrix ops: mmult kronecker solve trace
det
Transform: trans vectorize
half-vectorize to-list
to-vect
Decomp: decomp-cholesky
decomp-eigenvalue decomp-lu
decomp-qr decomp-svd
View: view
Save to file: save

I/O (incanter.io)

Read Data: read-dataset
Write Data: save

Optimization (incanter.optimize)

non-linear-model gradient hessian derivative
integrate

Data Sets (incanter.core)

Create: dataset read-dataset (incanter.io)
get-dataset (incanter.datasets)
Properties: dim ncol nrow dataset?
Selection: sel group-by
Transform: to-matrix
View: view
Save to file: save

Math (incanter.core)

Basic: plus minus mult div exp log log10
log2 pow sqr sq sum prod abs
Trig: cos sin tan acos asin atan
Special: beta gamma regularized-beta
incomplete-beta
Misc.: choose factorial sum-of-squares
solve-quadratic

Probability (incanter.stats)

PDF: pdf-beta pdf-binomial pdf-chisq
pdf-exp pdf-f pdf-gamma
pdf-neg-binomial pdf-normal
pdf-poisson pdf-t pdf-uniform
CDF: cdf-beta cdf-binomial cdf-chisq
cdf-empirical cdf-exp cdf-f
cdf-gamma cdf-neg-binomial
cdf-normal cdf-poisson cdf-t
cdf-uniform
Quantile: quantile quantile-normal
quantile-t
Sampling: sample sample-beta sample-binomial
sample-chisq sample-dirichlet
sample-exp sample-gamma
sample-inv-wishart sample-mvn
sample-neg-binomial sample-normal
sample-poisson sample-t
sample-uniform sample-wishart

Statistics (incanter.stats)

Summary: mean variance sd skewness
kurtosis median cumulative-mean
tabulate detabulate
Association: covariance correlation
Tests: chisq-test t-test permutations
bootstrap
Regression: linear-model

Bayesian Inference (incanter.bayes)

Sampling: sample-model-params
sample-multinomial-params
sample-proportions
Plots: trace-plot histogram

Censored Data (incanter.censored)

censored-mean-lower censored-mean-two-sided
censored-mean-upper censored-variance-lower
censored-variance-two-sided
censored-variance-upper truncated-variance