Description

logit(X) returns the log of the odds ratio of the elements of X, \(\ln\{x/(1-x)\}\).

\(\text{invlogit}(X)\) returns the inverse of the \(\text{logit}\) of the elements of X, \(\exp(x)/(1 + \exp(x))\).

\(\text{cloglog}(X)\) returns the complementary log-log of the elements of X, \(\ln\{-\ln(1-x)\}\).

\(\text{invcloglog}(X)\) returns the elementwise inverse of \(\text{cloglog}(\) of the elements of X, \(1 - \exp\{-\exp(x)\}\).

Syntax

\[
\begin{align*}
\text{real matrix} & \quad \text{logit}(\text{real matrix } X) \\
\text{real matrix} & \quad \text{invlogit}(\text{real matrix } X) \\
\text{real matrix} & \quad \text{cloglog}(\text{real matrix } X) \\
\text{real matrix} & \quad \text{invcloglog}(\text{real matrix } X)
\end{align*}
\]

Conformability

All functions return a matrix of the same dimension as input containing element-by-element calculated results.

Diagnostics

\(\text{logit}(X)\) and \(\text{cloglog}(X)\) return missing when \(x \leq 0\) or \(x \geq 1\).

Also see

[M-4] Statistical — Statistical functions