API Collection

Vector extrema calculation

Calculate the minimum and maximum values in a vector.

Topics

Calculating the minimum value of a vector

`static func minimum<U>(U) -> Float`

Returns the single-precision minimum value of a vector.

`static func minimum<U>(U) -> Double`

Returns the double-precision minimum value of a vector.

`vDSP_minv`

Calculates the single-precision minimum value of a vector.

`vDSP_minvD`

Calculates the double-precision minimum value of a vector.

`vDSP_minmgv`

Calculates the single-precision minimum magnitude of a vector.

`vDSP_minmgvD`

Calculates the double-precision minimum magnitude of a vector.

Calculating the index of the minimum value of a vector

`static func indexOfMinimum<U>(U) -> (UInt, Float)`

Returns the maximum value and corresponding index in a single-precision vector.

`static func indexOfMinimum<U>(U) -> (UInt, Double)`

Returns the maximum value and corresponding index in a double-precision vector.

`vDSP_minvi`

Calculates the minimum value and corresponding index in a single-precision vector.

`vDSP_minviD`

Calculates the minimum value and corresponding index in a double-precision vector.

`vDSP_minmgvi`

Calculates the minimum magnitude and corresponding index in a single-precision vector.

`vDSP_minmgviD`

Calculates the minimum magnitude and corresponding index in a double-precision vector.

Calculating the maximum value of a vector

`static func maximum<U>(U) -> Float`

Returns the single-precision maximum value of a vector.

`static func maximum<U>(U) -> Double`

Returns the double-precision maximum value of a vector.

`vDSP_maxv`

Calculates the single-precision maximum value of a vector.

`vDSP_maxvD`

Calculates the double-precision maximum value of a vector.

`static func maximumMagnitude<U>(U) -> Float`

Returns the single-precision maximum magnitude of a vector.

`static func maximumMagnitude<U>(U) -> Double`

Returns the double-precision maximum magnitude of a vector.

`vDSP_maxmgv`

Calculates the single-precision maximum magnitude of a vector.

`vDSP_maxmgvD`

Calculates the double-precision maximum magnitude of a vector.

Calculating the index of the maximum value of a vector

`static func indexOfMaximum<U>(U) -> (UInt, Float)`

Returns the maximum value and corresponding index in a single-precision vector.

`static func indexOfMaximum<U>(U) -> (UInt, Double)`

Returns the maximum value and corresponding index in a double-precision vector.

`vDSP_maxvi`

Calculates the maximum value and corresponding index in a single-precision vector.

`vDSP_maxviD`

Calculates the maximum value and corresponding index in a double-precision vector.

`static func indexOfMaximumMagnitude<U>(U) -> (UInt, Float)`

Returns the maximum magnitude and corresponding index in a single-precision vector.

`static func indexOfMaximumMagnitude<U>(U) -> (UInt, Double)`

Returns the maximum magnitude and corresponding index in a double-precision vector.

`vDSP_maxmgvi`

Calculates the maximum magnitude and corresponding index in a single-precision vector.

`vDSP_maxmgviD`

Calculates the maximum magnitude and corresponding index in a double-precision vector.

See Also

Vector reduction

Vector average calculation

Calculate the average value in a vector.

Vector summation

Sum the values in a vector.