

# Get Confidence Intervals

## Description

Calculates t confidence intervals for m samples each of size n contained in the R matrix mat which is a  $m \times n$  matrix. Each row is a sample of size n. The function is discussed in Exercise 4.2.11 on page 245 of HMC (2018).

## Usage

```
getcis(mat, cc = 0.9)
```

## Arguments

- mat    an m x n matrix
- cc    confidence coefficient, or the confidence level of the intervals

## Details

This function is used to calculate t confidence intervals for m samples each of size n contained in the R matrix mat, which is a  $m \times n$  matrix. Each row is a sample of size n.

## Value

(1 - alpha)100% confidence intervals in a m x 2 matrix

## References

Hogg, R., McKean, J., Craig, A. (2018) Introduction to Mathematical Statistics, 8th Ed. Boston: Pearson.

## Examples

```
n <- 10
m <- 50
mat <- matrix(rnorm(m * n), ncol = n)
getcis(mat = mat, cc = 0.95)
getcis(mat = mat, cc = 0.90)
```