Package ‘etrunc’

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Type Package
Title Computes Moments of Univariate Truncated t Distribution
Version 0.1
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Description Computes moments of univariate truncated t distribution.
   There is only one exported function, e_trunct(), which should be seen for details.
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ed_trunct | Compute moments of univariate truncated t distribution |

Description

Compute moments of univariate truncated t distribution
Usage

e_trunct(a, b, df, r)

Arguments

- **a**: the left end of the truncation interval
- **b**: the right end of the truncation interval
- **df**: the degrees of freedom of the t distribution
- **r**: the degree of moment to compute

Details

This function computes the r-th moment of the univariate t distribution on df degrees of freedom, truncated to the interval (a,b). If parameters are vectors then the r[i]th moment is computed for each (a[i],b[i],v[i]). The methods are based on results in O'Hagan (1973) and work for df>r. Otherwise NaN is returned.

References


Examples

- `e_trunct(-3,3,3,2)` # second moment of t distribution on 3df truncated to (-3,3)
- `e_trunct(-2,2,4,1)` # first moment, should be 0 by symmetry
- `e_trunct(c(-3,-2),c(3,2),c(3,4),c(2,1))` # the function is vectorized
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