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scipy.integrate.romberg

scipy.integrate.romberg(*function*, *a*, *b*, *args=()*, *tol=1.48e-08*, *rtol=1.48e-08*, *show=False*, *divmax=10*, *vec_func=False*) [source]
(<https://github.com/scipy/scipy/blob/v1.1.0/scipy/integrate/quadrature.py#L639-L756>)

Romberg integration of a callable function or method.

Returns the integral of *function* (a function of one variable) over the interval (*a*, *b*).

If *show* is 1, the triangular array of the intermediate results will be printed. If *vec_func* is True (default is False), then *function* is assumed to support vector arguments.

Parameters:

function : *callable*

Function to be integrated.

a : *float*

Lower limit of integration.

b : *float*

Upper limit of integration.

Returns:

results : *float*

Result of the integration.

Other Parameters:

args : *tuple, optional*

Extra arguments to pass to function. Each element of *args* will be passed as a single argument to *func*. Default is to pass no extra arguments.

tol, rtol : *float, optional*

The desired absolute and relative tolerances. Defaults are 1.48e-8.

show : *bool, optional*

Whether to print the results. Default is False.

divmax : *int, optional*

Maximum order of extrapolation. Default is 10.

vec_func : *bool, optional*

Whether *func* handles arrays as arguments (i.e whether it is a “vector” function). Default is False.

See also: