

CS 447/547: Numerical Integration

Due February 3, 11:59 PM.

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The goal of this assignment is to compute some definite integrals numerically. You may use C++ (recommended) or C, or any mix of the two. The method of parallelization should be pthreads or C++ threads. Other languages may be allowed. If you are interested, you may contact the instructor.

You may use a quadrature method, or Monte Carlo. Do not use Taylor series, etc., for this assignment. This is intended as a warm-up assignment, to refresh your memory on threads, math, etc. You should check your method with the instructor, to make sure that it is okay.

Here are 3 different integrals you can use to get started. I will add more shortly.

$$\int_a^b \sin(x)/x \, dx$$

$$\int_0^\infty \sin(x)/x \, dx$$

$$\int_a^b \frac{\sin(1/x)}{x} \, dx$$