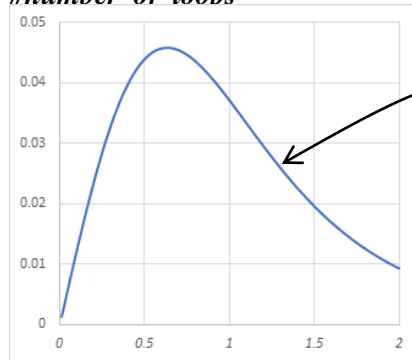# Homework Assignment 3 – due on Saturday, October 14 (Midnight)

Description of Assignment:

You are to write an openMP C program(area.c) which computes the area under the curve of a graph *f(x)* shown in the following figure. Your program should measure execution time using milliseconds and GFLOPS with the next command. You have to use **double** and **long** for variables.
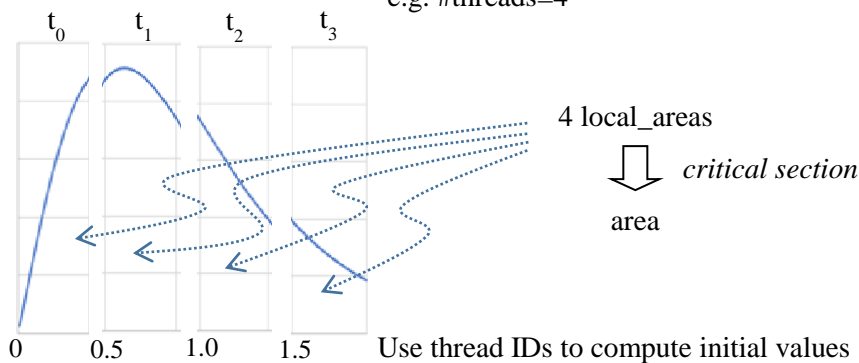
area #threads #number_of_loops

$$f(x) = \frac{x}{(x^2+2)^3}$$

Tips for the program:

e.g. #threads=4

4 local_areas

critical section

area

Use thread IDs to compute initial values

How to proceed:

1. Copy /home/course/hpc/area.c into your working directory.

2. Complete area.c to parallelize using openMP

3. Test "area #segments #threads" assuming the executable file name is *area*.

Turnin the assignment:

After done your assignment, type **turnin** in your current working directory. You can retype the command at any time before the due date.