Mini EP8: A Real Problem

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Due date: June 21th, 2021

1. Introduction

Time is money, mainly when considering the stock market. In this mini EP you are going to optimize a program used to calculate european options.

If you're interested in knowing more about the computed equation, search for Black-Scholes equation.

2. Tasks

Download from eDisciplinas the file **"blackscholes.zip"**. After uncompressing it you will find the "bs.c" program and the "input" file. After compiling the "bs.c" program, you will get a program that receives as arguments the path to the input file and the path to the output file.

To test the program, send the path to the "input" file and a path where you wish to save the output file, but we are not going to use it. The program verifies the computed result and in case of errors, it will print in the output console of the program.

You must optimize the program using OpenMP.

3. Submission

Add in the beginning of the program your name and USP number, and send the optimized program file to eDisciplinas.

The due date is June 21th, 2021.

4. Score Criteria

The mini EPs utilize a binary score criteria (1 or 0). To get 1 you must submit the file as specified to eDisciplinas. Code quality will not be scored, but do your best.

It is worth reinforcing paragraph II of article 23 of the **USP Code of Ethics**:
Article 23 - Members of the student body and other students of the University are prohibited from:
[...]
II. make use of means and devices that can defraud the performance evaluation, yours or of others, in academic, cultural, artistic, sports and social activities, within the scope of the University, and cover up the possible use of these means.

Plagiarized Mini EPs will receive a score of 0.

Any questions, send a message at the forum or send an email to elisa@silva.moe, lucianadacostamarques@gmail.com, or gold@ime.usp.br with *[miniEP8]* in the subject. Have fun!