

# Live Lecture Chat Window

## May 31, 2023

**15:01:29** after a three year long streak I finally got COVID so, I hope your Memorial Day was better than mine

Yuch! I am so sorry to hear that. I know how awful you must feel. I got Covid a year ago. I remember holding Zoom OHs for this class from my home guest room. I hope you feel better soon.

**15:02:35** Turns out what I thought was three infections in succession was just the flu the whole time

Wow! OK, everyone. *Stop getting sick.* I need you healthy for these last 3 weeks. I hope you feel better soon too.

**15:06:22** Can the host be anything other than a CPU?

I can't think of how that might work, but I always hate to say "never".

**16:05:02** Fourier analysis across a distributed network of processors... sounds a lot like SETI@home, from Ye Olden Days.

I believe that is indeed what they were doing -- looking for sine wave (or at least regular) patterns in the seemingly noisy signal.

**16:18:22** Is there a way to define the bash script comments for #SBATCH, but in a python script instead?

Doesn't look like it.

**16:32:28** I have a few really low values when I ran on rabbit (i.e. 0.39, 0.55) . Is that expected?

Yes, if the dataset size is small or if the number of threads per block is < 32. These two conditions will always kill performance.

**17:13:04** From A Bear to Everyone: [SLURM stands for] "Simple Linux Utility for Resource Management"

Cool! I never knew that.

17:17:45 I think I have 7 working, but I missed your script for running the sbatch

```
#!/bin/bash
#SBATCH -J Fourier
#SBATCH -A cs475-575
#SBATCH -p classmpitest
#SBATCH -N 8          # max number of nodes
#SBATCH -n 8          # max number of tasks
#SBATCH --constraint=ib
#SBATCH -o fourier.out
#SBATCH -e fourier.err
#SBATCH --mail-type=END,FAIL
#SBATCH --mail-user=mjb@cs.oregonstate.edu
module load openmpi
mpic++ fourier.cpp -o fourier -lm
for p in 1 2 4 6 8
do
    mpiexec -mca btl self,tcp -np $p ./fourier
    echo " "
done
```

17:20:02 And are the "periods" we report the value associated with the spikes?

Yes.