Dynamic Scheduler

1 Writing a dynamic loop scheduler

Question: Write a dynamic loop scheduler to compute numerical integration. Navigate to the `dynamic/` directory and use `dynamic_main.cpp` as a base code. Write the code so that it outputs the integral value on `stdout` and the time it takes to make the computation on `stderr`.

You should start from the static loop scheduler you wrote in `static/static_loop.cpp` and add support for dynamic scheduling in the object that provide parallel loop semantic. You should add a function that enables the application to set granularity.

In the `dynamic_main.cpp`, the `main` function takes an additional parameter that indicate which granularity to use.

Question: Report time and speedup across a range of parameters on `Centaurus`. Use `make test` to test your code. Your code MUST pass the test before you can use `make bench` to start the SLURM jobs. When complete, you should be able to plot with `make plot`. Note: you must run these commands from within the `dynamic/` directory.

Question: Compare performance at 16 threads across different granularity and intensity. Why are the speedup this way?