## CSC0049 Advanced Computer Graphics Assignments 4

<u>Due: May 5</u> (-10% for each day late)

The goal of this assignment is to further improve your ray tracer in Assignment 3 to achieve significant speedup when it renders a large 3D scene.

- Your tasks are the following.
  - 1. Achieve at least 2x speedup for a medium-sized 3D model (100~1000 primitives) and at least 10x speedup for a large-sized 3D model (10,000~100,000 primitives).
  - 2. Write a report that contains the output image and the run time of each provided input file. There will be at least two input files. You may choose a reasonable resolution for your output images and keep it the same when you compare the run time.
- Please upload both your program (source code) and the report on Moodle (<a href="https://moodle3.ntnu.edu.tw/course/view.php?id=14069">https://moodle3.ntnu.edu.tw/course/view.php?id=14069</a>). If you submit multiple files for your program, then please pack your source files in a single ZIP or RAR file for the upload.