Advanced Computer Graphics

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Contents

1 Labs

1.1 Lab 1 - Rasterising Lines

1.2 Lab 2 - Reading Models

1.3 Lab 3 - Simple Raytracing

1.3.1 Raycasting

1.3.2 Triangle intersection

To compute triangle intersections the Möller–Trumbore algorithm was used. This was used instead of the method on the *slides* anticipating the requirements for the baracentric coordinates to complete Gouraud shading further in the coursework.

1.4 Lab 4 - Basic Lighting and Shadows

1.4.1 Spotlights

1.4.2 Pointlights

The slides refer to two methods to create pointlights, with and without an associated direction. As spot lights are directional, pointlights with a constant intensity were implemented. This allows a pointlight to be placed between objects to cast shadow outwa

1.4.3 Shadows

2 Optimisations

3 Advanced Features