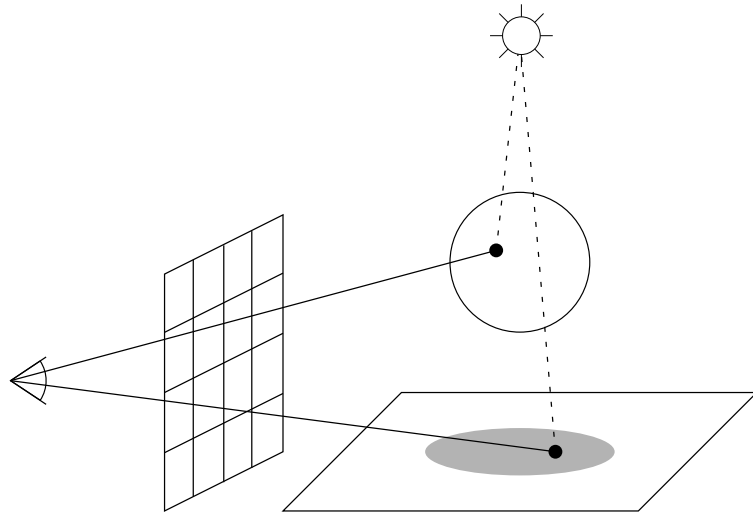


Shadows

CS 130

1. Basic idea



2. A shadow will occur at a place on an object that is unable to see the light source.

3. Test for this by casting a ray from the intersection location on the object to the light source.

4. Bugs

- (a) Intersecting objects behind the light
- (b) Intersecting objects behind the object being rendered
- (c) Illumination by a light under the ground
- (d) Self-shadowing (shadow ray intersects self at distance zero)
- (e) Prune intersections closer than $t = \epsilon$ in intersection routine