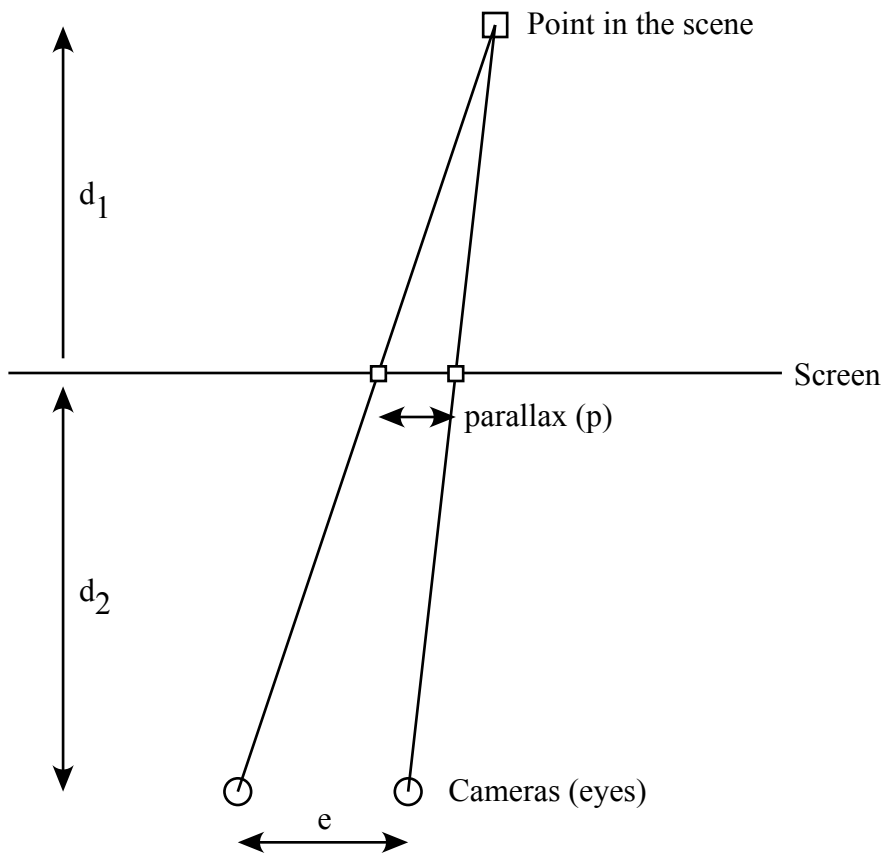


## Calculating stereoscopic parallax

Paul Bourke

Simplifying case, consider camera (eye) and object in question on the midheight of the projection plane (window). Full analysis requires 3D intersection of eye position and object with the screen plane.

Top view



From similar triangles  $p = e d_1 / (d_1 + d_2)$

Notes

- $d_1 = 0$  then  $p = 0$
- $d_1 = d_2$  then  $p = e/2$
- as  $d_1 \rightarrow \infty$  then  $p \rightarrow e$
- $d_1 \rightarrow -d_2$  then  $p \rightarrow \infty$
- $d_1 = -d_2/2$  then  $p = -e/2$