

2023-1 Computer Graphics

Review_1st week

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Introduction to rendering

A 3D rendered scene showing a grey, angular object on a brown rectangular base. A colorful sphere with red, yellow, and blue segments is also on the base. The text 'Introduction to rendering' is overlaid in white, with 'rendering' in a larger, bolder font.

Introduction to
rendering



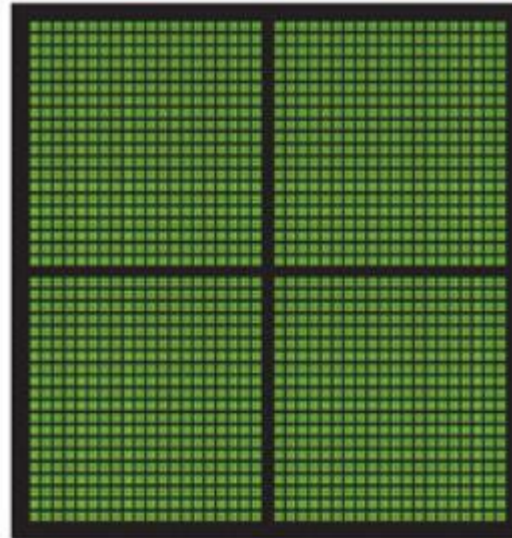
Khan Academy

<https://youtu.be/NEzJH-JrAdw>

CPU vs. GPU



CPU
MULTIPLE CORES



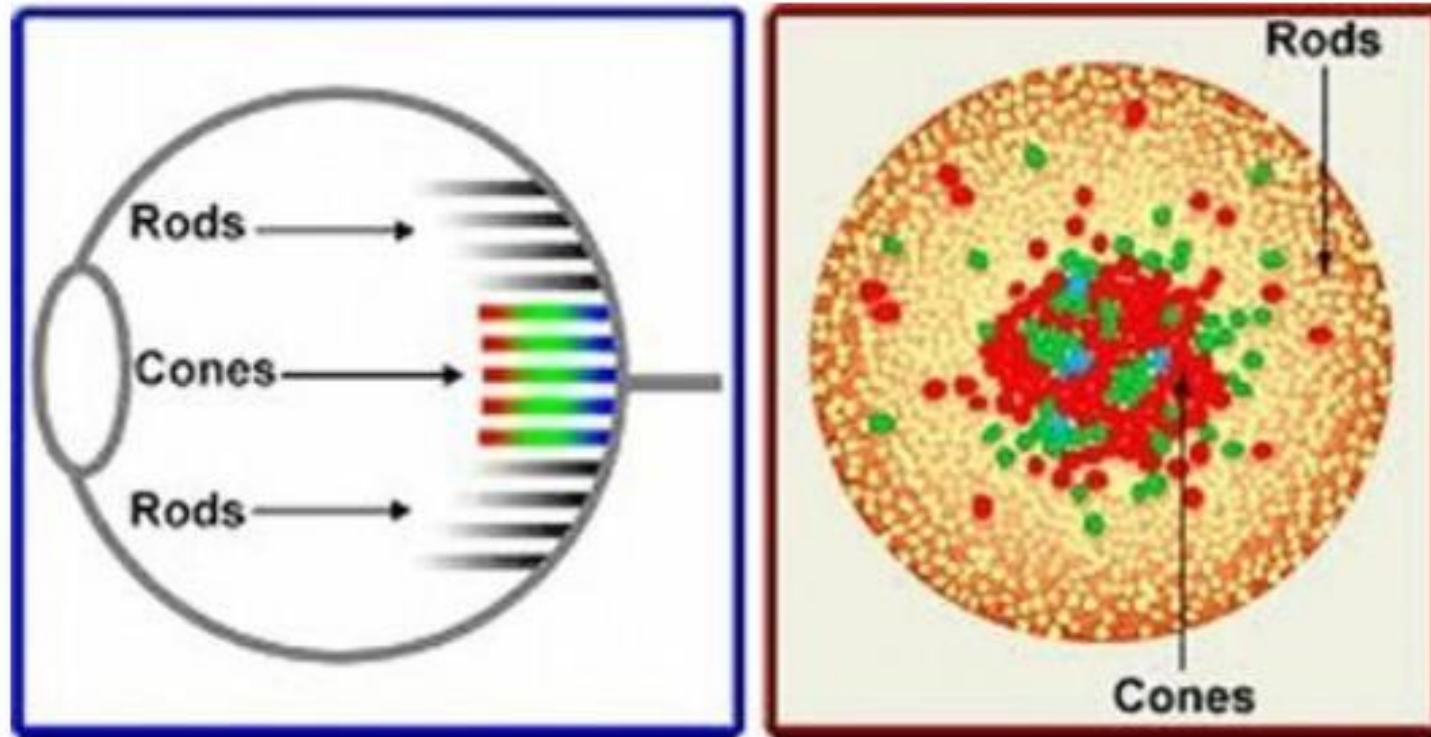
GPU
THOUSANDS OF CORES

CPU vs. GPU



<https://youtu.be/-P28LKWTzrl>

Cones and Rods



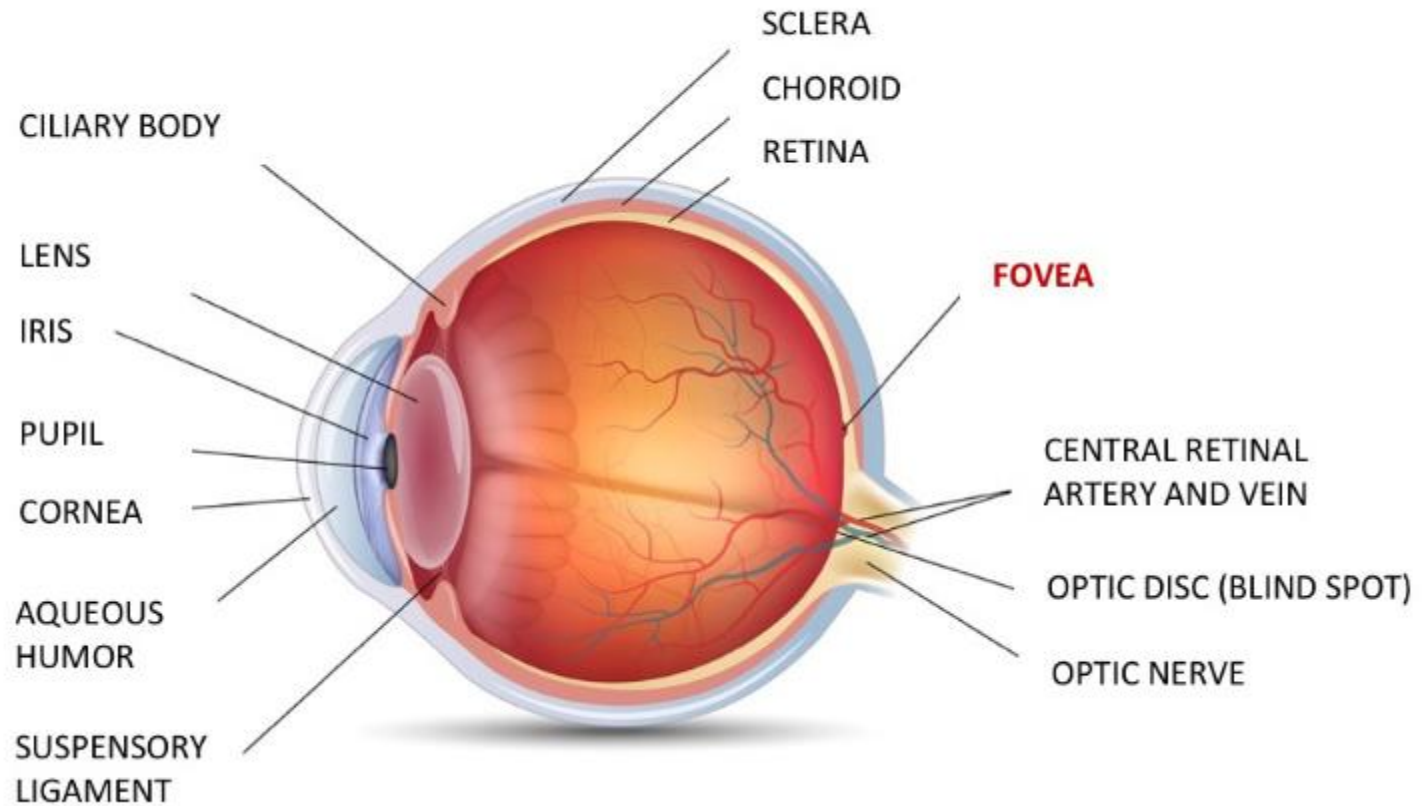
Cones and Rods



https://youtu.be/_ElAuQyw4uA

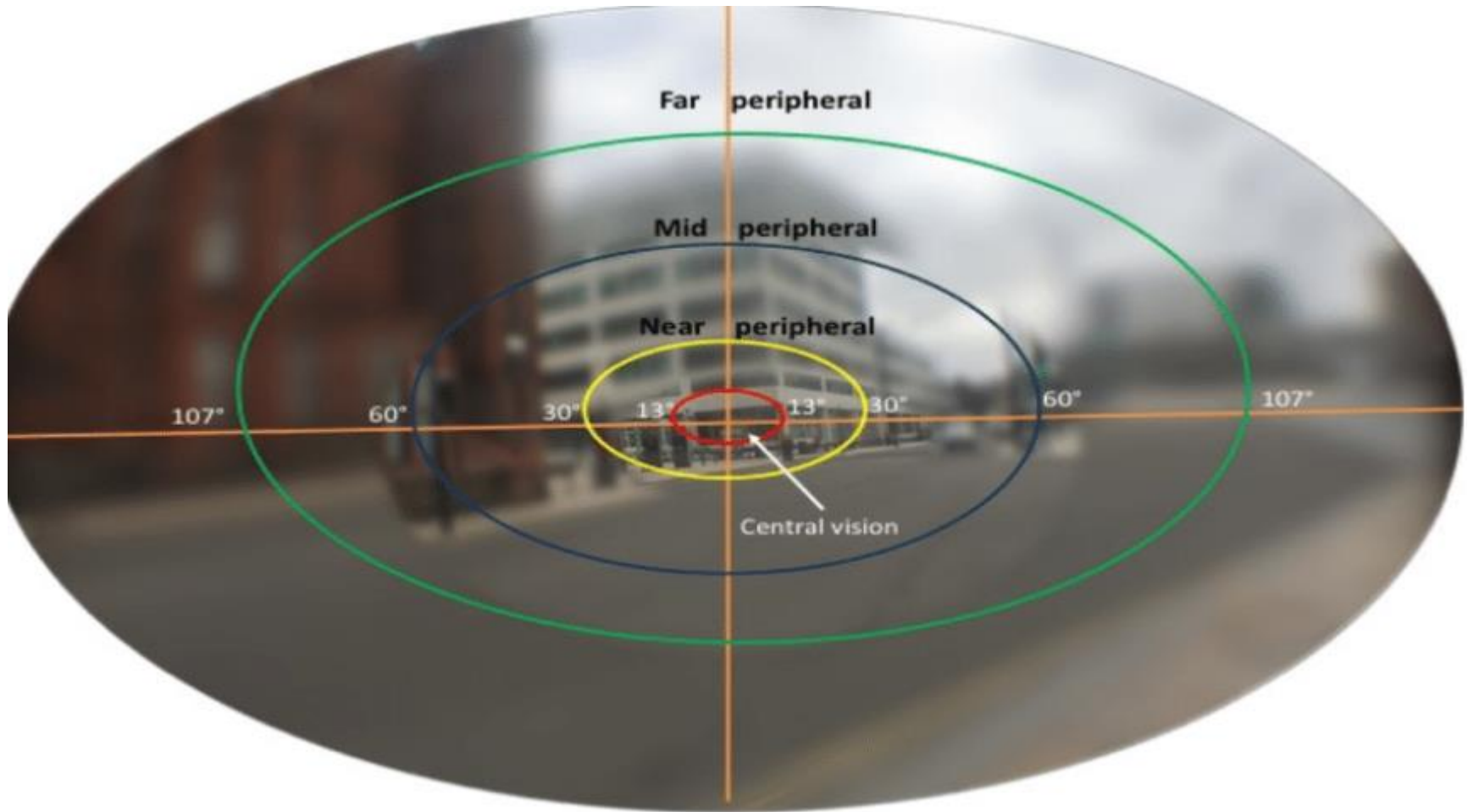
Foveated rendering

Field of View



Foveated rendering

Field of View



Foveated rendering



Foveated rendering



<https://youtu.be/INX0wCdD2LA>

How can we represent 3D objects?

3D representation & primitives

How
GRAPHICS
Work

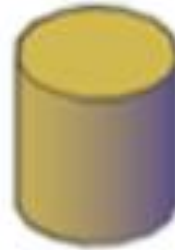


<https://youtu.be/cvcAjgMUPUA>

3D representation & primitives



cone



cylinder



wedge



sphere



torus



box



pyramid



Any other ways to represent a 3D object?