



# Global illumination

- Rendering equation
- General global illumination
- Approximations: AO, voxel cone ray tracing
- Diffuse global illumination
- Specular global illumination

# Volumetric rendering

- Translucent
- Sub-surface
- Volumetric visualization in rasterization-based rendering:  
[https://www.youtube.com/watch?v=Qj\\_tK\\_mdRcA&ab\\_channel=SimonDev](https://www.youtube.com/watch?v=Qj_tK_mdRcA&ab_channel=SimonDev)
- Volumetric rendering in ray-tracing environments.

# Enhanced rasterization-based rendering

- Deferred shading
- Shadows

# Physical lights

- Area lights with shape and size
- Techniques:
  - Simulate the softening of edges that result from area light being partly occluded **RTR 7.1.2.**
  - Simulate effects of area light on surface shading **RTR 10.1.**

# NPR

- Gooch shading
- Toon
- Outline
- Storke
- Lines

# Gooch shading

- Stylized shading models may use light in many different ways – depending on application and desired style
- Some stylized models do not have concept of light at all!
  - Gooch model: light is only used as directional information