

Week 9

Boyuan Li

Whitted's recursive ray tracing algorithm is one answer to the rendering equation, since it matches all elements in the equation. It uses the idea of Phong-shading to present the geometry attributes of the light, and recursively trace the light from viewer's position to the viewing fragment to calculate the scattered light. As it fulfills all elements for calculating this radiosity equation, it would be considered a solution to the equation.

Kajiya first discussed several approaches to approximate the equation using Neuman series, "Utah approximation", our famous Whitted's ray tracing approximation etc. Then Kajiya presents us with the MCMC method, which is widely used in sampling from a probability distribution, extended infinite dimensional solution to better approximate the result. Kajiya then presents 5 sampling approaches where I get completely lost..