Summary of "An Improved Illumination Model for Shaded Display"

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1 Overview

The illumination model is used to generate the color/light of an objects surface at a given point on that surface. The article presents a new shading model that uses global information to calculate intensities that the traditional models can't deal with.

2 Key points

Conventional Models uses Lamber's consine law as the simplest visible surface algorithms for shaders. Phong's Model is a more sophisticated model, but it has a drawback that has a big side effect on the quality of specular reflections. Another method that modeling an object's environment and mapping it onto a sphere of infinite radius was developed to partially solve the problem from Phong's model.

Compared to the traditional model, the improved model added the diffuse component, which includes S, the intensity of light incident from the reflection direction, k_t, the transmission coefficient, and T, the intensity of light from the refraction direction.

A tree of rays is used to make the illumination visible to the viewer.

3 New terminology/equation Encountered

4 Conclusion

I get a big trouble now...