

PHYSICS AND ASTRONOMY COLLOQUIUM

Dr. Lorne Whitehead

University of British Columbia

Understanding the Remarkable Accuracy of Colour Perception

Abstract

The Color Vision chapter in Feynman's Lectures on Physics nicely describes the well-established fact that colour vision arises from spectrally selective phototransduction in retinal cells. However, that picture offers little insight into how people usefully perceive the colours of surfaces, which was the primary evolutionary driver for color vision. I will describe how we know that people with normal colour vision perceive surface colors in remarkably similar ways. Some of my recent work has helped to explain this and contributed to a newly approved