



PHYSICS AND ASTRONOMY COLLOQUIUM

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“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 international metric for the color rendering quality of light sources. This presentation will be aimed at the undergraduate level. I hope that afterward audience members will be able to describe, in general terms, the complex nature of the colour vision system, and that this complexity yields simple information that usefully characterizes the materials around us.

Wednesday, February 21, 2018

3:30 p.m.

Elliott Building

Room 062