

Abstract

Titolo

How can we determine what colours somebody can see?

Relatore

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We live in a colourful world, yet colour can be deceptively difficult to define. Variations in the frequency and wavelength of electromagnetic radiation can be linked to perceptual differences often labelled as 'colour differences', yet the perception of colour can also be produced by other means including flickering black and white stimuli. A lovely example of this can be observed when viewing optical illusions, such as Benham's top. The perception of colour can enrich one's experience and, in some settings, allows for the efficient encoding of valuable safety critical information that can enhance visual performance.

In this webinar, we will examine how human visual processing has evolved to perceive colour, the different methods that can be used to determine and establish the colours that an individual can see, why a shared perception of colour is of the utmost importance in a large number of occupations, and how modern research has enabled the generation of novel methods for examining human colour vision.