UNIVERSITÀ DEGLI STUDI DI PADOVA

SHANGHAI SUMMER SCHOOL
VENICEASIAGO2016

DATE: 31st August 2016
TIME: 14:00 - 17:00
LOCATION: Osservatorio Astronomico di Asiago, via dell'Osservatorio, 8; Asiago, Vicenza

Visual perception and colour illusion

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ABSTRACT

We can verbally describe colours and lights the way we see them. The verbal language is a powerful tool to objectify what is perceived and allows communication of subjective experience. Further, ordering colours is the beginning of colour science.

The sensory stimulation is to be considered as a trigger of the perceptual activity and is used as a source of information for the construction of a 'phenomenal', completely different world which works as an *interface** between subject and physical reality.

The stimuli / information on which perception is grounded are of two types: a) variations / modulations of energy [first order stimuli], and b) relationships between events in different spaces and times [second order stimuli].

Codes for *interpreting** the visual stimuli have been identified. They are implemented in the visual system to build and differentiate the impressions of lights and surface colours
Interaction between colours, lights, and space is the essence of visual perception: we will examine a few illusions that highlight how they are not a discrepancy with physical reality, but just different perceptual organizations due to second order stimuli.

We will bring examples of how the laws of perception are the grammar of artistic language (transparency effects in pictorial art).

FURTHER READINGS

1) Da Pos, O., (1997). Colour illusions. *In*: *COLOR*, Vol. I, pp. 34-41. The Color Science Association of Japan, Kyoto (Jpn).
2) Da Pos, O., and Albertazzi, L., (2010). It is in the nature of the colours. *Seeing and Perceiving*, 23:39–73. Doi:10.1163/187847509X12605137947466.
3) Hering, E. (1964). *Outlines of a Theory of The Light Sense*. Harvard Univ. Press, Cambridge, Massachussets.