

# **“Good Picture?”**

## **Assessing the Quality of Digital Images and Systems.**

### **An RPS Symposium**

## **Programme of Presentations**

**10:00 to 10:05 Introduction**

**10:05 to 10:40 Prof. Ray Clark: Wonders of Imaging: Past and Present.**

Drawing from the Society’s Collection (founded in 1853), this talk will demonstrate early world class images and equipment. Coming forward to the present, advances in state of the art medical and scientific imaging will also be described and illustrated.

**10:40 to 11:15 Prof. Ralph Jacobson: Image Quality: Meanings, Minefields and Mastery.**

Essentially a non-mathematical overview of various issues relating to image quality, including working definitions, transferability of concepts from conventional to digital systems, physical (objective) and psychophysical (subjective) measures. Advantages and pitfalls will be highlighted.

**11:15 to 11:20 Comfort Break**

**11:20 to 11:55 Dr. Rob Jenkin: “Fuzzy Duck !”**

What determines how sharp images appear? Is it just number of pixels or film grain? How do we measure it? This talk introduces the concept and use of Modulation Transfer Function to evaluate imaging systems from a layman’s perspective.

Go on - add a graphic equalizer to your camera!

**11:55 to 12:30 Dr. Mike Pointer: Digital Cameras – Choosing and Using.**

This talk will review major decisions that must be made in order to choose a digital camera. Issues described include the concepts of pixels, resolution and compression, also taking the picture, downloading the stored image, and viewing and editing the image.

**12:30 to 1:30 Lunch**

**1:30 to 2:05 Prof. Geoff Attridge: Digital Cameras – Lovely Colour Isn’t It?**

This talk will outline the reproduction of colour by digital photography and will address the characterisation of digital cameras in terms of the “colorimetric accuracy of colour reproduction”. Important limitations of colour reproduction will also be identified.

**2:05 to 2:40 Prof. Robert Hunt: How To Make Pictures and Please People.**

Various ways in which pictures can be made by both subtractive and additive displays are reviewed. Systems using these displays are all limited by errors caused by incorrect camera spectral sensitivities, and by the limited gamuts of reproducible colors.

Subtractive systems are further limited by the unwanted absorptions of their colorants. Pictorial images are usually assessed by comparison with memories of familiar objects. Six possible different objectives are described: spectral, colorimetric, exact, equivalent, corresponding, and preferred. Possible reasons for preferring increased contrast in images are discussed.

**2:40 to 2:45 Comfort Break**

**2:45 to 3:20 Jim Aldridge: Digital Images and the Criminal Justice System.**

Increasing use of digital images for evidence raises issues for those who take, process and use the material as it passes through the CJS. A procedure has been published allowing images to be handled in a standardised way that complies with the rules of evidence.

The paper will outline the procedure and examine some practical issues.

**3:20 to 3:55 Dr. Sophie Triantaphillidou: Archival Image Quality, Storage and Migration Strategies.**

The talk will introduce the processes involved in the digitisation, display and storage of image collections and archives. Description of device characterisation and calibration procedures will be discussed, along with the important issues of image encoding, file format, physical storage and data migration.

**4:00 to 5:00 Open Forum**