



detector seminar

SPEAKER: Anthony Butler
TITLE: **Colour X-rays for Medicine: a summary of the 2019 specXray workshop**
DATE: 17 May 2019, 11:00
PLACE: 503-1-001 - Council Chamber

ABSTRACT

Conventional medical X-ray imaging is performed using detectors which form an image based on the total charge deposited by incoming photons in each sensor pixel. Thanks to progress in Hybrid Pixel Detector technology - first developed for High Energy Physics - photon counting and, in particular, spectroscopic photon counting becomes possible. Each incoming photon is detected individually and binned according to its energy. A Workshop on Medical Applications of Spectroscopic X-ray Detectors (specXray) has taken place at CERN every 2 years since 2011 where specialists in the field from physics, medical research and industry meet to exchange experience and knowledge. Since the first meeting, scepticism about the benefits of such an approach (and the associated technical challenges) has gradually given way to an acceptance that the approach has great potential, offering new avenues in diagnostic imaging. First clinical trials have just started. This talk will summarise the most recent Workshop providing an overview of the field today and present some predictions of the clinical benefits in future.

Organised by: Burkhard Schmidt (EP-DT) and Michael Campbell (EP-ESE)