



Series of Seminars:

SCINTILLATOR DETECTORS:

from Theory to Applications

(Medicine, Security, High Energy Physics and Engineering)

Seminar #1

Dr. Stratos David

Department of Biomedical Engineering, University of West Attica, Athens, Greece

Novel Nuclear Medicine Imaging Detectors

Room C-LAB, May 8th 2018, 15.30 – 16.30

Facoltà di Ingegneria, Università Politecnica delle Marche,

Web-streaming: <https://meet.lync.com/univpm-pm/s1062746/LZ08SVGG>

Topic

Scintillators and phosphors, coupled to optical sensors (e.g. photodiodes, photocathodes, films, PMTs, SIPMs etc.) are employed in most radiation detectors used in medical imaging systems:

- The radiation detection (stopping power) in terms of quantum detection efficiency (QDE) and energy absorption efficiency (EAE)
- The intrinsic X-ray to light conversion efficiency (η_c)
- Transmittance of light within the scintillation material
- The spectral matching factor (α_s)
- The effective efficiency (EE)

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