

# **GATEv6.2 Cerenkov simulation (LYSO 2.9 x 2.9 x 10 mm<sup>3</sup> and SiPM)**

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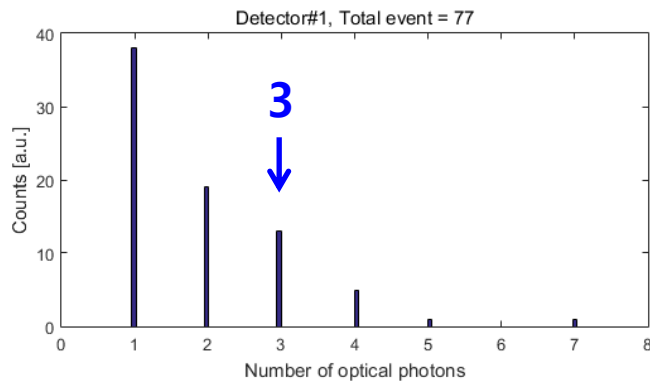
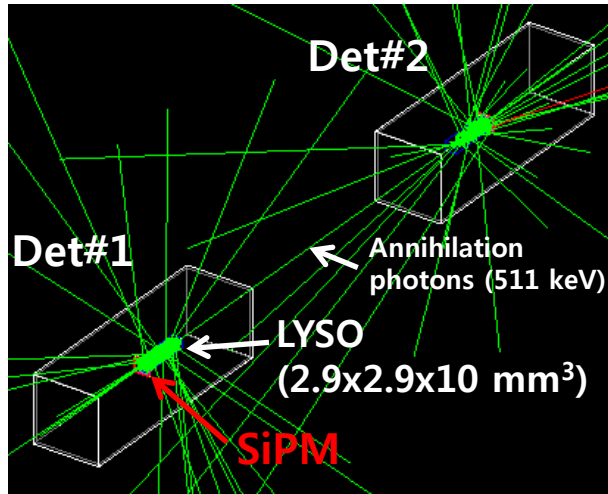
Department of Senior Healthcare,

Eulji University, South Korea.

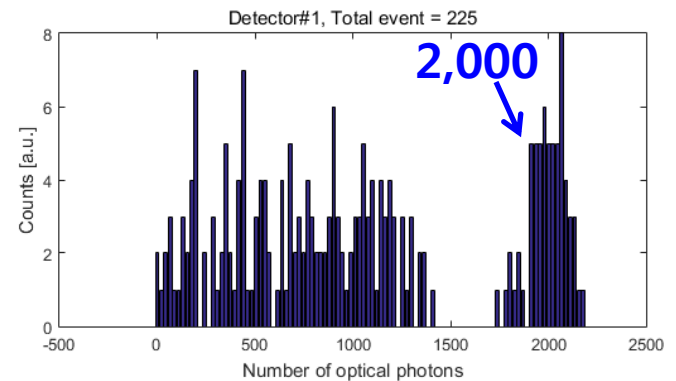
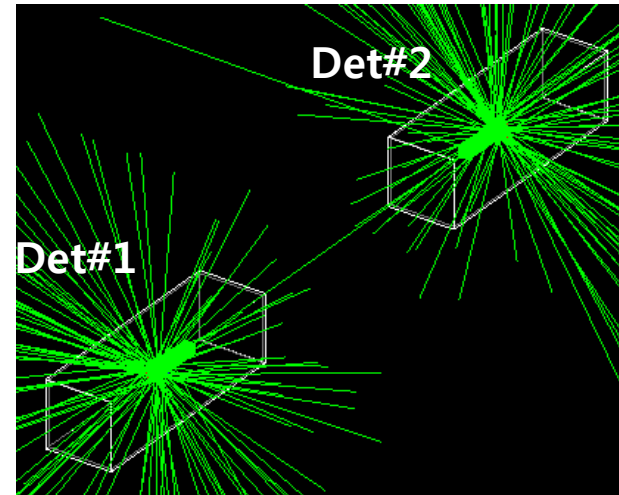
hangyookang@gmail.com

# Cerenkov vs. Scintillation

## Cerenkov only



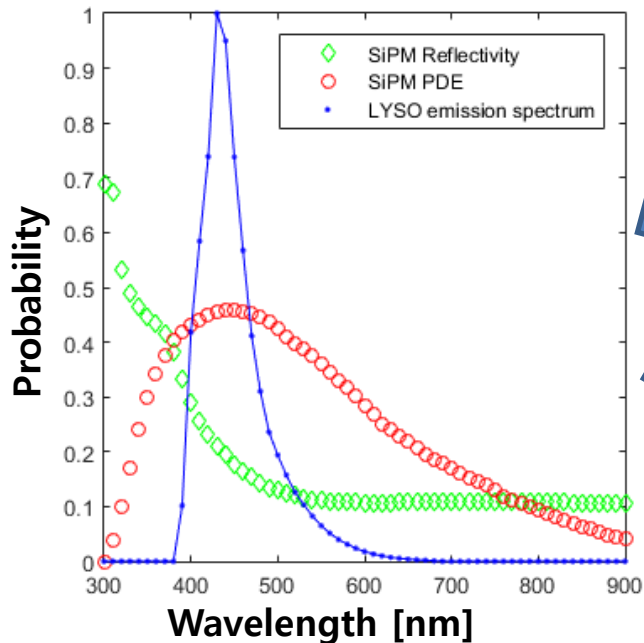
## Scintillation only



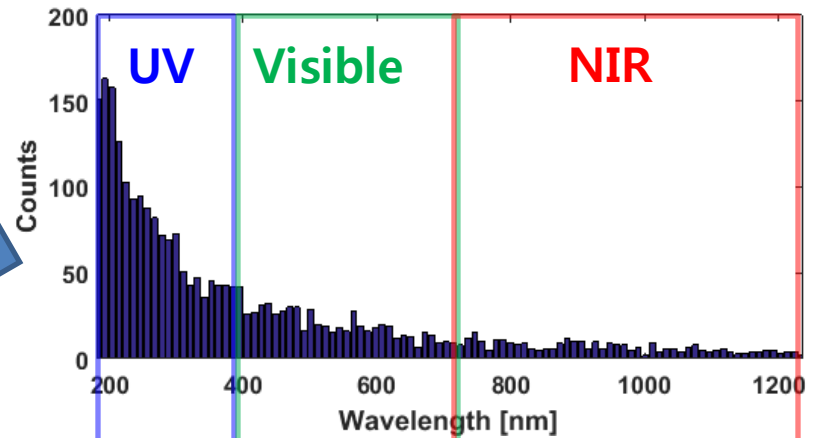
Materials.xml : **LYSO**  
Surfaces.xml: **SiPM(S11064-050P)**

# Cerenkov luminescence spectrum (Ideal SiPM vs. realistic SiPM)

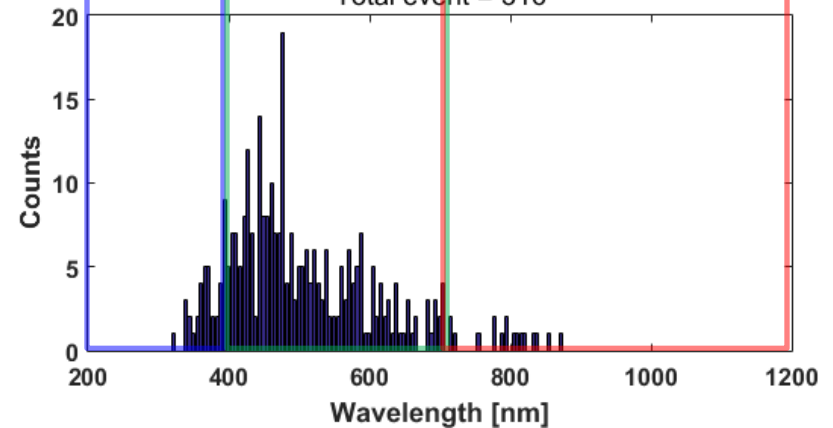
## Optical properties of LYSO and SiPM



## Cerenkov spectrum with an ideal SiPM



## Cerenkov spectrum with a realistic SiPM



Materials.xml : **LYSO**

Surfaces.xml: **SiPM(S11064-050P)**