



**IAEA**

International Atomic Energy Agency

# Joint ICTP-IAEA School on LoRa Enabled Radiation and Environmental Monitoring Sensors



## Introduction to Radiation Monitoring

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# Outline

- **My 3 Things!**
- **Basic Physics**
- **Detectors**
- **NORM**
- **Statistics**

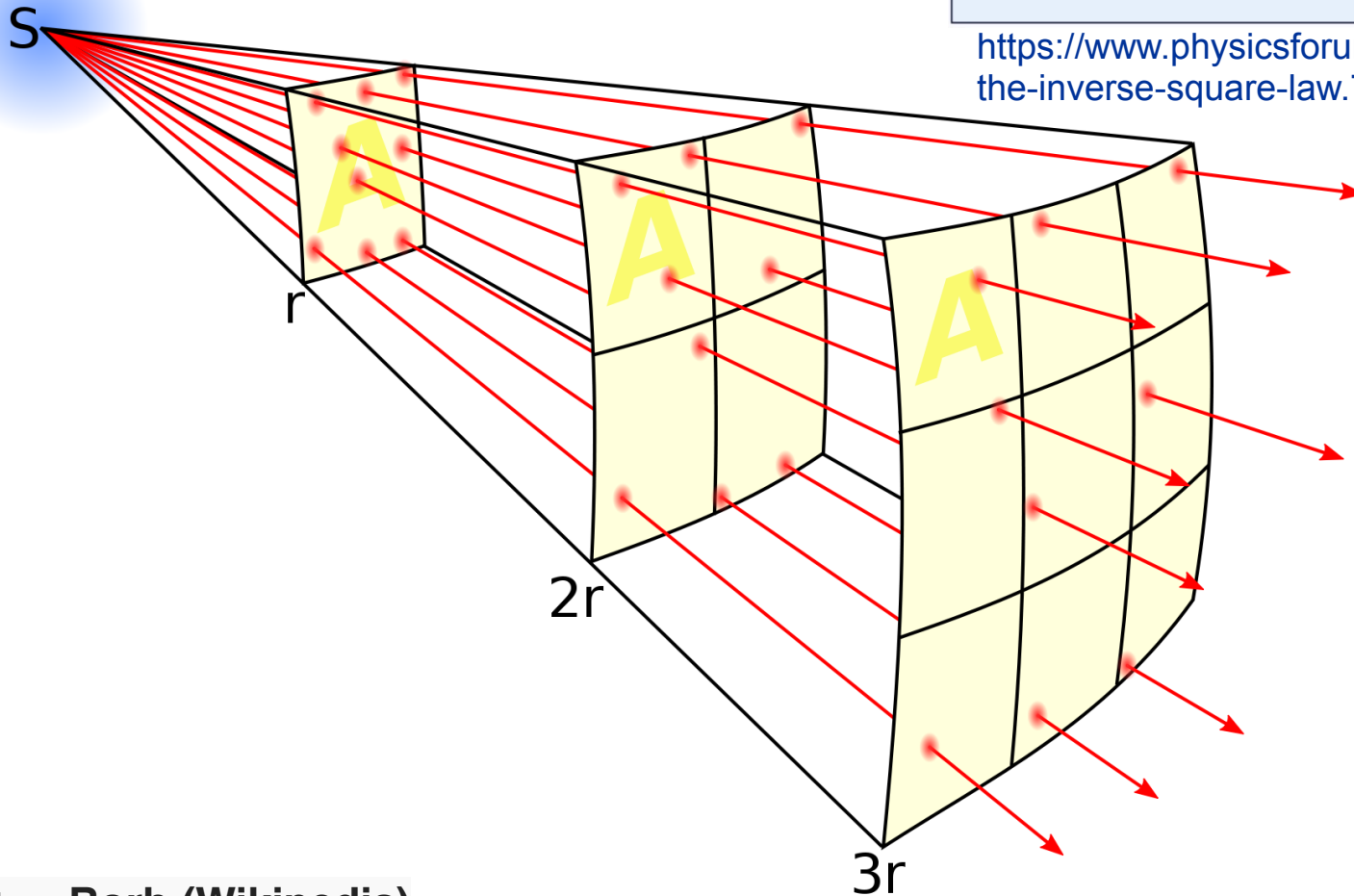
# 3 Things! #1

## The Inverse Square Law

$$\frac{I_1}{(I_2)} = \frac{(d_2)^2}{(d_1)^2}$$

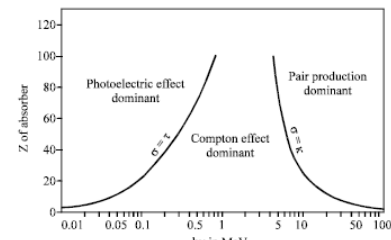
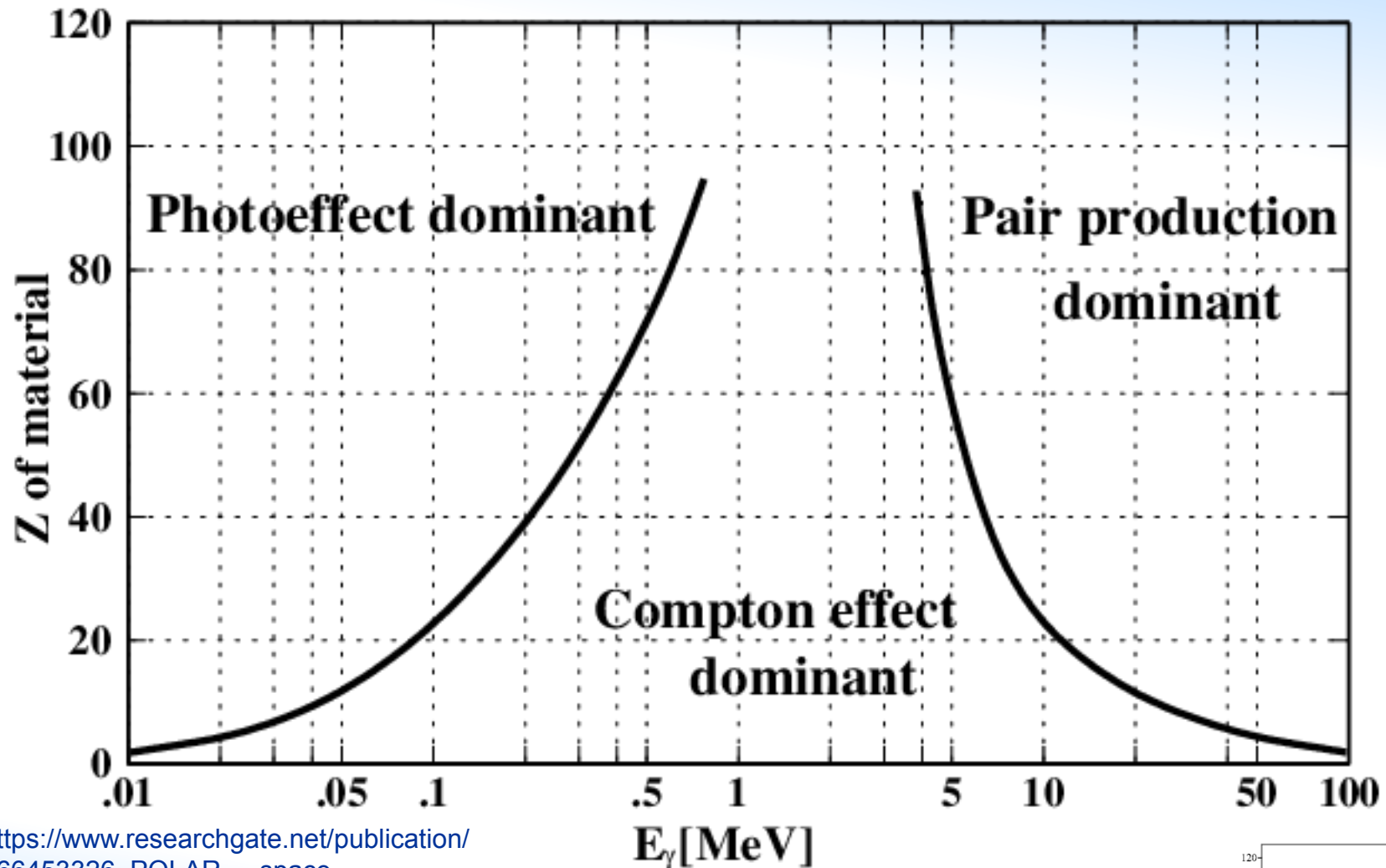
$I_1$  is the initial intensity of radiation,  $d_1$  is the initial distance, and  $d_2$  is the final distance, and  $I_2$  is the final intensity.

<https://www.physicsforums.com/threads/the-inverse-square-law.754756/>



Attribution: Borb (Wikipedia)

# 3 Things! #2

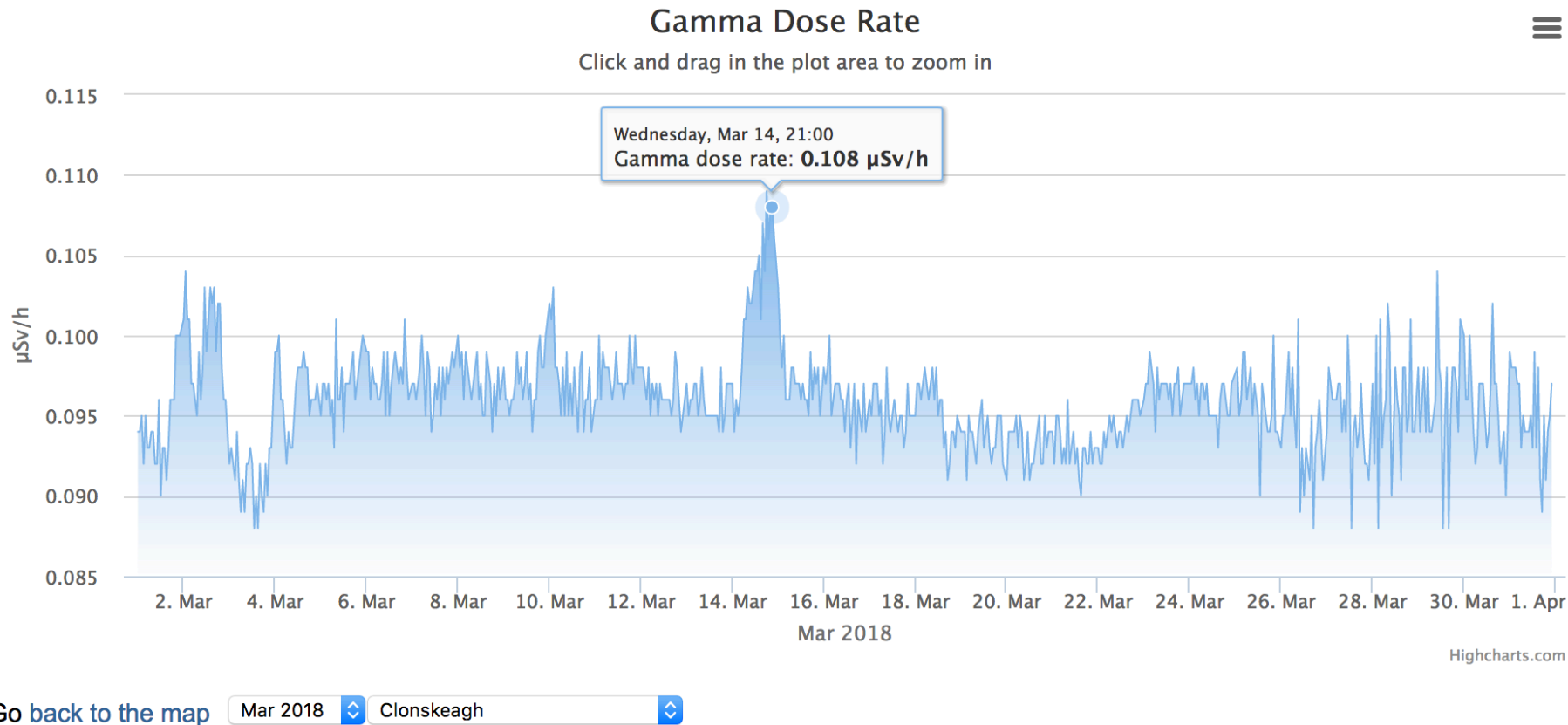


[https://www.researchgate.net/publication/266453326\\_POLAR\\_-\\_space-borne\\_Gamma\\_Ray\\_Burst\\_polarimeter/figures?lo=1](https://www.researchgate.net/publication/266453326_POLAR_-_space-borne_Gamma_Ray_Burst_polarimeter/figures?lo=1)

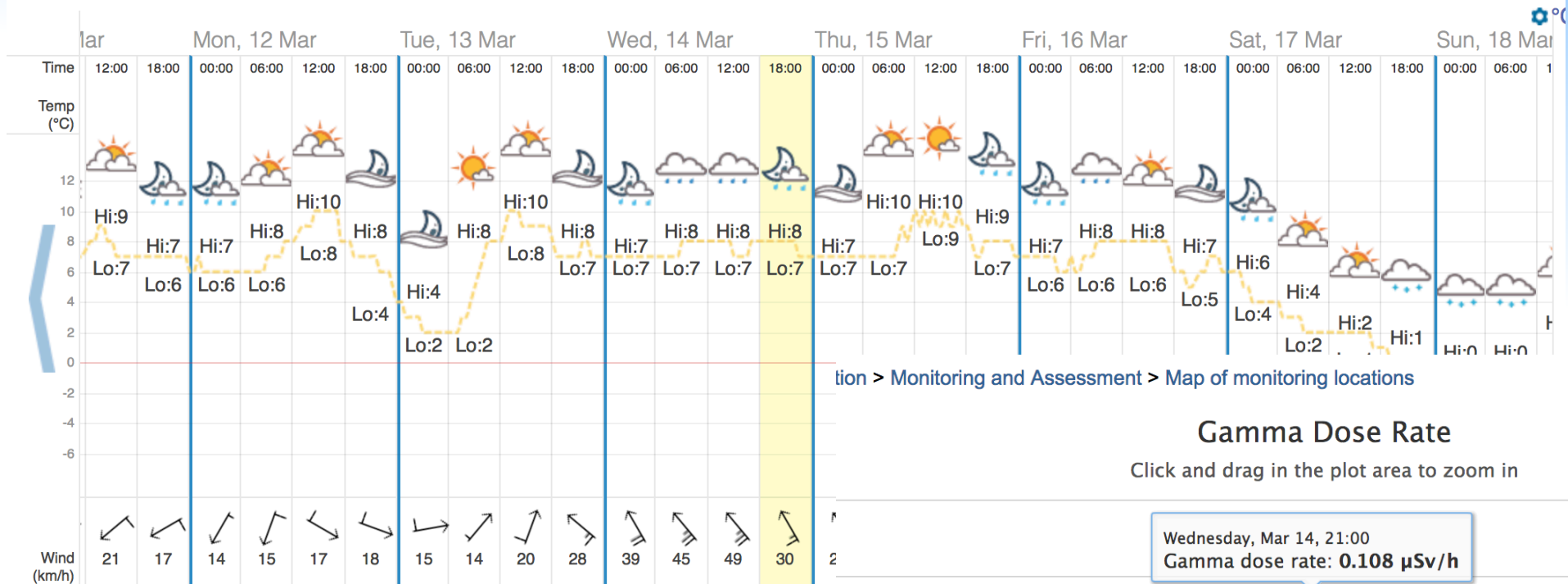
Orig fig ref: *The Atomic Nucleus*, R.D. Evans 1955

# 3 Things! #3

You are here: [Home](#) > [Radiation](#) > [Monitoring and Assessment](#) > [Map of monitoring locations](#)



# March 2018 Weather in Dublin — Graph

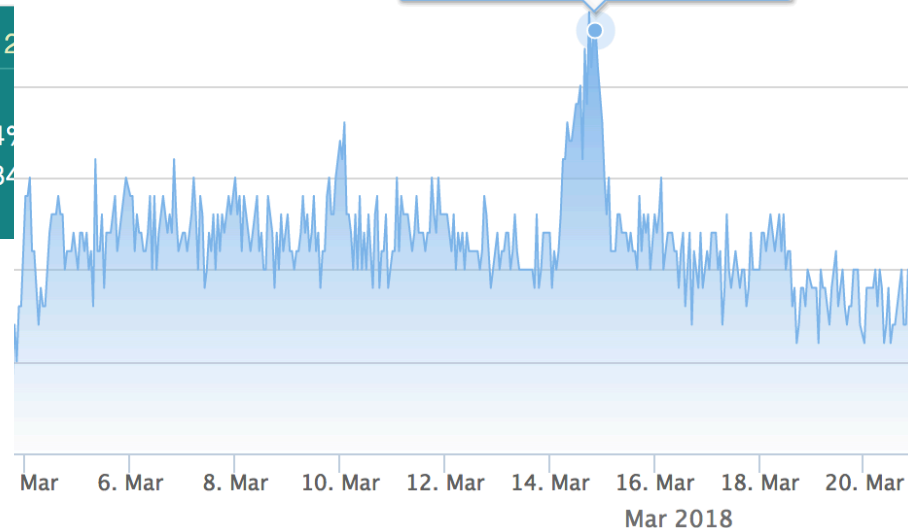


tion > Monitoring and Assessment > Map of monitoring locations

## Gamma Dose Rate

Click and drag in the plot area to zoom in

Wednesday, Mar 14, 21:00  
Gamma dose rate: **0.108  $\mu$ Sv/h**



# 3 Things! #3

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