Technical Communications Class 3350-01 Writing Assignment

Topic: Photon Shot Noise

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Sources:  
1. <https://en.wikipedia.org/wiki/Shot_noise>

Descriptions to Write

**Technical Expert in Physics and Optics**

When working with photon shot noise, the ability to shine and interact with light is limited by how far the device in use can shoot the photons in any direction and then connect with whatever it touches. Photon shot noise is also known as shot noise. “When shot noise interacts with photons it is called photon counting in optical devices.” (<https://en.wikipedia.org/wiki/Shot_noise>) For the photons to interact with light, and have the shot noise to connect to the object of choice, the device must have the capabilities to stretch and send the light far enough for the light to be seen.

**Head of Business and Development for Infrared Imaging Company**

When working with photon shot noise and imaging, depending on how much light the lens can absorb or can contain is what you can see with photon interaction with light. “When shot noise interacts with photons it is called photon counting in optical devices.” (<https://en.wikipedia.org/wiki/Shot_noise>) When dealing with devices and how much light you can interact with when using photon shot noise can depend on the design of the imaging or device being used.

**Layperson in STEM written description (No idea about the topic at all)**

Photon Shot Noise or shot noise can be described as a use of photons, one of many different types of particles and how they interact with light. As referenced from an online site: “When shot noise interacts with photons it is called photon counting in optical devices.” (<https://en.wikipedia.org/wiki/Shot_noise>)

You can think of how photons interaction with light when you use a flashlight. In relation to the description provide on the site, the photon interaction is show then you turn the light on and off. The photons are being shot out and being pressed up against the wall. When the light begins to fade or dim down that means the number of photons that are being moved out are coming in smaller amount. This means the light is fluctuating, light fluctuation is basically shot noise.

**Great Aunt Thanksgiving Dinner Conversation Transcript (little understanding of topic but interested)**

Photon shot noise is the use of how light changes when using a laser pointer as an example. As well as using a flashlight turning it on and off. If we look at a flashlight it is easy to explain, “…if the brightness is reduced until only a handful of photons hit the wall every second...” (<https://en.wikipedia.org/wiki/Shot_noise>) So when you use a flashlight and the light is not shinning as bright that means the light is fluctuating so the photon numbers are being shot out in a constant amount and shrinking.