# Article information:

Discrimination of neutron and gamma ray using the ladder gradient method and analysis of filter adaptability | SpringerLink  
<https://link.springer.com/article/10.1007/s41365-022-01136-5>

# Article summary:

1. Neutron detection technology is important for a variety of applications, but detecting neutrons and gamma rays simultaneously can be difficult.

2. Pulse-shape discrimination (PSD) techniques have been developed to separate neutron and gamma-ray pulse signals (n-γPSs).

3. A novel discrimination method using a pulse-coupled neural network (PCNN) was proposed in 2021, displaying breakthrough discrimination performance compared to conventional methods.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article is generally reliable and trustworthy, as it provides an overview of the current state of neutron and gamma ray detection technology, as well as a detailed description of the PCNN-based discrimination method proposed by Liu et al. in 2021. The article also provides evidence for its claims in the form of references to relevant research papers and studies.

However, there are some potential biases that should be noted. For example, the article does not explore any counterarguments or alternative approaches to neutron and gamma ray detection technology, which could provide a more balanced view on the topic. Additionally, while the article does mention other PSD techniques such as CC and ZC methods, it does not provide any comparison between them and PCNN-based method in terms of their respective advantages or disadvantages. Furthermore, there is no discussion about possible risks associated with using PCNN-based method for neutron and gamma ray detection technology, which could be an important point to consider when evaluating this approach.

In conclusion, while this article is generally reliable and trustworthy due to its evidence-based approach to discussing neutron and gamma ray detection technology, there are some potential biases that should be taken into account when assessing its trustworthiness.

# Topics for further research:

* Neutron and gamma ray detection technology comparison
* Advantages and disadvantages of PCNN-based method
* Alternative approaches to neutron and gamma ray detection
* Risks associated with PCNN-based method
* CC and ZC methods for neutron and gamma ray detection
* Counterarguments to PCNN-based method for neutron and gamma ray detection

# Report location:

<https://www.fullpicture.app/item/86d7b4b8b0cecbcc3233b4055935bc6b>