# Article information:

Discrete generalized Fresnel functions and transforms in an arbitrary discrete basis-所有数据库
[https://hfbicd85ae6022a1f4d78sofqcuwcwo9wq6o9ffiac.eds.tju.edu.cn/wos/alldb/full-record/WOS:000241537700016](https://hfbicd85ae6022a1f4d78sofqcuwcwo9wq6o9ffiac.eds.tju.edu.cn/wos/alldb/full-record/WOS%3A000241537700016)

# Article summary:

1. This paper develops the idea of generalized Fresnel functions, which are used to express a discrete transform as a linear convolution.

2. The generalized discrete Fresnel functions and transforms for an arbitrary basis are considered using an algebraic approach to signal processing.

3. It is shown that the generalized Fresnel transforms induced by the Walsh basis and the corresponding generalized Fresnel functions are unitary, and that the generalized Fresnel transforms induced by the conjunctive basis consist of powers of the golden ratio.

# 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 “Discrete Generalized Fresnel Functions and Transforms in an Arbitrary Discrete Basis” is a well-researched piece of work that provides a comprehensive overview of the topic at hand. The authors have done an excellent job in presenting their findings in a clear and concise manner, making it easy to understand even for readers with limited knowledge on this subject matter. The article also provides detailed explanations on how each concept works, which makes it easier for readers to follow along.

However, there are some potential biases present in this article that should be noted. For example, while the authors do provide evidence for their claims, they do not explore any counterarguments or alternative perspectives on this topic. Additionally, there is no mention of possible risks associated with using these methods or any discussion about how they could be improved upon in future research. Furthermore, while the authors do provide references to other sources throughout their paper, they do not cite any sources from outside their own field of expertise which could provide additional insight into this topic.

In conclusion, while this article does provide a thorough overview of its subject matter and presents its findings clearly and concisely, there are some potential biases present that should be taken into consideration when evaluating its trustworthiness and reliability.

# Topics for further research:

* Discrete Generalized Fresnel Transformations
* Discrete Basis Theory
* Alternative Perspectives on Discrete Generalized Fresnel Functions
* Risks of Using Discrete Generalized Fresnel Functions
* Improving Discrete Generalized Fresnel Functions
* Sources of Expertise on Discrete Generalized Fresnel Functions

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