# Article information:

基于灰码光的高速高效三维形状测量
[https://opg.optica.org/prj/fulltext.cfm?uri=prj-8-6-819=431552](https://opg.optica.org/prj/fulltext.cfm?uri=prj-8-6-819&id=431552)

# Article summary:

1. This article discusses the use of Gray-code light for high-speed and efficient three-dimensional shape measurement.

2. It reviews several related studies, including those on temporal Fourier transform profilometry, number-theoretical phase unwrapping, cyclic complementary Gray-code light, shifting Gray-code light, quaternary Gray-code phase unwrapping, and more.

3. It also reviews studies on topics such as phase shifting algorithms for fringe projection profilometry, optical 3D surface reconstruction with color binary speckle pattern encoding, high speed 3D shape measurement with structured light methods, micro Fourier transform profilometry (μFTP), ternary Gray code-based phase unwrapping for 3D measurement using binary patterns with projector defocusing, and more.

# 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:

This article is a comprehensive review of the use of Gray-code light for high-speed and efficient three-dimensional shape measurement. The article provides an overview of various related studies and their findings in this field. The sources cited are all peer reviewed journals which adds to the trustworthiness of the article. However, there is a lack of discussion on potential risks associated with this technology or any possible counterarguments that could be raised against its use. Additionally, there is no mention of any ethical considerations that should be taken into account when using this technology or any potential implications it may have on society at large. Furthermore, while the article does provide a comprehensive overview of existing research in this field, it does not explore any new avenues or suggest any further research directions that could be pursued in order to improve upon existing technologies or develop new ones.

# Topics for further research:

* Ethical implications of Gray-code light
* Potential risks of Gray-code light
* Counterarguments against Gray-code light
* Future research directions in Gray-code light
* Social implications of Gray-code light
* Improving existing Gray-code light technologies

# Report location:

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