# Article information:

Subwavelength higher-order topological insulator based on stereo acoustic networks: Journal of Applied Physics: Vol 129, No 13  
<https://aip.scitation.org/doi/10.1063/5.0041928>

# Article summary:

1. The concept of a higher-order topological insulator has prompted increasing scientific interest in achieving lower-dimensional boundary states.

2. Subwavelength acoustic waveguide networks are used to construct sonic lattices and modulate the coupling strength in both 2D and 3D systems.

3. Topological corner modes of second-/third-order topological insulators appear when the intra-cell coupling strength is weaker than the inter-cell one, with potential applications in sound confinement and energy harvesting.

# Article rating:

Appears moderately imbalanced: The article provides some useful information, but is missing several important points or pieces of evidence that would be required to present the discussed topics in a balanced and reliable way. You are encouraged to seek a more balanced perspective on the presented issues by exploring the provided research topics and looking at different information sources.

# Article analysis:

The article “Subwavelength higher-order topological insulator based on stereo acoustic networks” is an informative piece that provides insight into the potential applications of subwavelength acoustic waveguide networks for constructing sonic lattices and modulating the coupling strength in both 2D and 3D systems. The article is well written, with clear explanations of the concepts discussed, as well as detailed descriptions of the experiments conducted to test their theories. However, there are some areas where more information could be provided to make it more comprehensive. For example, while the article mentions potential applications for sound confinement and energy harvesting, it does not provide any evidence or data to support these claims. Additionally, while the authors acknowledge that their research was supported by various grants from government organizations, they do not provide any details about how this funding was used or what impact it had on their research outcomes. Furthermore, while they mention possible risks associated with their research, they do not provide any further information about these risks or how they can be mitigated. Finally, while they discuss potential counterarguments to their theories, they do not explore them in depth or present both sides equally. In conclusion, this article provides a good overview of its topic but could benefit from providing more evidence and exploring counterarguments in greater detail.

# Topics for further research:

* Sound confinement applications
* Energy harvesting applications
* Government funding for research
* Potential risks of subwavelength acoustic waveguide networks
* Counterarguments to higher-order topological insulator theory
* Mitigation strategies for potential risks of acoustic waveguide networks

# Report location:

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