



# Audio Engineering Society Conference Paper

Presented at the AES 5th International Conference on  
Automotive Audio  
2024 June 26–28, Gothenburg, Sweden

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## Very long title of complex audio algorithms and results

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### ABSTRACT

Write the abstract here.

### 1 Introduction

Introduce to the topic.

### 2 Methods

Show your methods.

### 3 Results

Present results.

### 4 Discussion

Discuss the results.

### 5 Examples

Here are a few examples on LaTeX.

#### 5.1 Citations

Citations can be used as follows, Pulkki [1] created VBAP and DirAC [2]. Notice the difference in the reference types allowed by natbib-package.

**Table 1:** This table shows a few trigonometric values.

| $\theta$ | $\sin(\theta)$ | $\cos(\theta)$ |
|----------|----------------|----------------|
| $\pi/4$  | $\sqrt{2}/2$   | $\sqrt{2}/2$   |
| $\pi/3$  | $\sqrt{3}/2$   | $1/2$          |
| $\pi/2$  | $1$            | $0$            |

#### 5.2 Equations

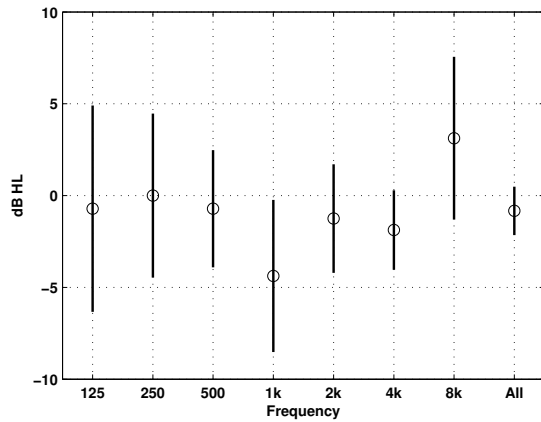
Equations are used often in text and Equation 1 shows an example of this.

$$\cos(2\alpha) = e^{j2\pi} - 2\sin^2(\alpha) \quad (1)$$

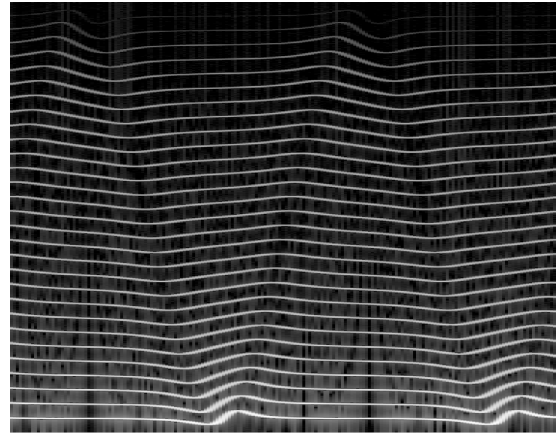
#### 5.3 Tables & figures

Tables can be created in various ways and for various purposes. The example in Table 1 shows basic trigonometric values using booktabs formatting.

There are also various ways to include and even draw figures in LaTeX. The most common is to include them.



**Fig. 1:** This is an example of using the pdf format showing means and confidence intervals of audiometric data.



**Fig. 2:** This is a spectrogram of a spectral delay filtered sawtooth waveform using the png format.

As is shown with Figures 1 and 2. LaTeX places the figures in the optimal place in the document by its typesetting rules but appropriate location can be hinted with [t], [b], and [h] arguments (corresponding to top, bottom, and here). Combination of these are also allowed. AES instructions recommend only placing figures and tables at the top or the bottom of the document but getting the preferred result might require some tuning by hand.

## 6 Summary

Summarize your work and conclude.

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## References

- [1] Pulkki, V., “Virtual Sound Source Positioning Using Vector Base Amplitude Panning,” *Journal of Audio Engineering Society*, 45(6), pp. 456–466, 1997.
- [2] Pulkki, V., “Spatial Sound Reproduction with Directional Audio Coding,” *Journal of Audio Engineering Society*, 55(6), pp. 503–516, 2007.