

# ROOM IMPULSE RESPONSE ESTIMATION USING SIGNED DISTANCE FUNCTIONS

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## ABSTRACT

This is the template file for the proceedings of the 23<sup>rd</sup> International Conference on Digital Audio Effects (DAFx-20). This template has been derived from WASPAA'99 templates and aims at producing conference proceedings in electronic form. The format is essentially the one used for ICASSP conferences. Please use either this  $\text{\LaTeX}$  or the accompanying Word formats when preparing your submission. The templates are available in electronic form on <https://dafx2020.mdw.ac.at/>.

## 1. INTRODUCTION

This template can be found on the conference website.

### 1.1. Figures

All figures should be centred on the column (or page, if the figure spans both columns). Figure captions (in *italic*) should follow each figure and have the format given in Figure 1. Vectorial figures are preferred. For example when using `Matlab`, export using either Postscript or PDF format. Also, in order to provide a better readability, figure text font size should be at least identical to footnote font size. To do so using `Matlab`, use the `subplot` command before plotting. If bitmap figures are used, please make sure that the resolution is enough for print quality. Fig. 2 illustrates an example of a figure spanning two columns.

### 1.2. Tables

As for figures, all tables should be centered on the column (or page, if the table spans both columns). Table captions should be in *italic*, precede each table and have the format given in Table 1.

Table 1: *Basic trigonometric values.*

angle ( $\theta$ , rad)	$\sin \theta$
$\frac{\pi}{2}$	1
$\pi$	0
$\frac{3\pi}{2}$	-1
$2\pi$	0

\* Thanks to the predecessors for the templates

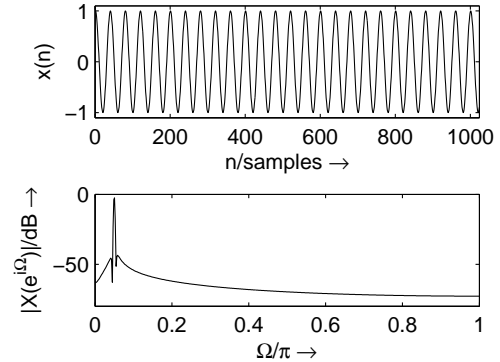


Figure 1: *Sinusoid in time and frequency domain. Short captions are centred, long captions (more than 1 line) are justified.*

### 1.3. Equations

Equations should be placed on separate lines and numbered:

$$X(e^{j\Omega}) = \sum_{n=0}^{N-1} x(n)e^{-j\Omega n} \quad (1)$$

where the sequence  $x(n)$  in equation (1) is a windowed frame:

$$x(n) = s(n)w(n) \quad (2)$$

with a window function  $w(n)$ .

### 1.4. Page Numbers

Page numbers will be added to the document in the postprocessing stage, so *please leave the numbering as is*, that is, the first page will start at page DAFX-1 and the last page, at most, will have to be DAFX-8.

### 1.5. References

The references will be numbered in order of appearance [1], [2], [3] and [4]. Please avoid listing references that do not appear in the text (we did the opposite in this template).

#### 1.5.1. Reference Format

The reference format is the standard IEEE one. We recommend to use BibTeX to create the reference list.

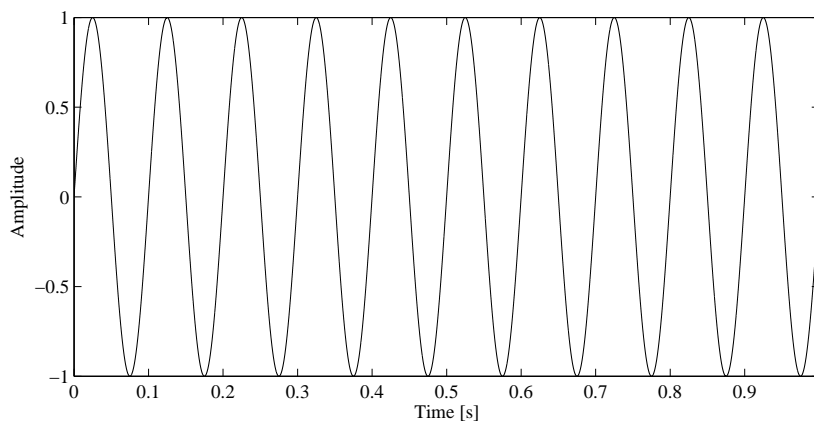


Figure 2: A figure spanning two columns, as mentioned in Sec. 1.1.

Table 2: Basic trigonometric values, spanning two columns.

angle ( $\theta$ , rad)	$\sin \theta$	$\cos \theta$	$(\sin \theta)/2$	$(\cos \theta)/2$	$(\sin \theta)/3$	$(\cos \theta)/3$
$\frac{\pi}{2}$	1	0	$1/2$	0	$1/3$	0
$\pi$	0	-1	0	$-1/2$	0	$-1/3$
$\frac{3\pi}{2}$	-1	0	$-1/2$	0	$-1/3$	0
$2\pi$	0	1	0	$1/2$	0	$1/3$

## 2. CONCLUSIONS

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## 3. ACKNOWLEDGMENTS

Many thanks to the great number of anonymous reviewers!

## 4. REFERENCES

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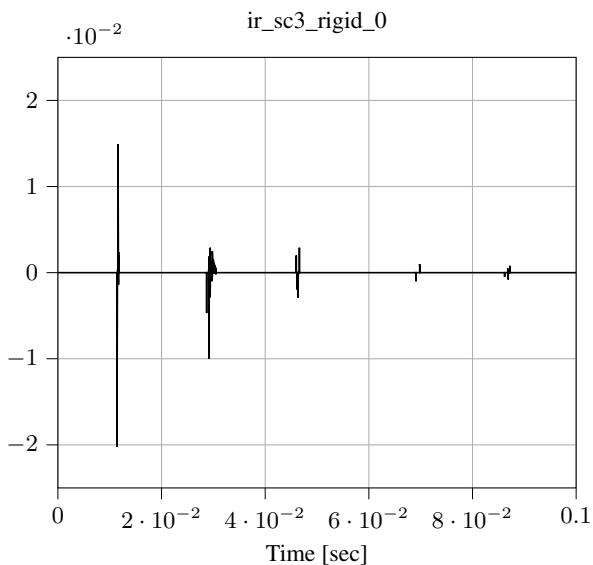


Figure 3: A PGF histogram from matplotlib.

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## 5. APPENDIX: MARGIN CHECK

This section shows the column margins for the text.

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