

Audio Quality Determination Based on Perceptual Measurement Techniques*

John G. Beerends,¹ James Joyce,² and Arthur Miller^{1,3}

¹Royal PTT Netherlands N.V., KRN Research, P. Box 421, AK Leidenham, The Netherlands, beerends@ptt.com.nl

²*Trinity University, Dublin, Ireland, jjoyce@dublin.ir*

³*Syracuse University, Syracuse, NY, arthurm@math.syracuse.edu*

Abstract Here is quite a long abstract. Here is quite a long abstract. Here is quite a long abstract....

Keywords: Keyword1, Keyword2

1. Introduction

[illegible]

2. All the Things that can be Done with Figure Captions

Here are some examples of various kinds of figure captions that can be use with this Kluwer style. They include the normal `\caption{}` as well as many more possibilities which you will see illustrated here.

*Thanks to everyone...

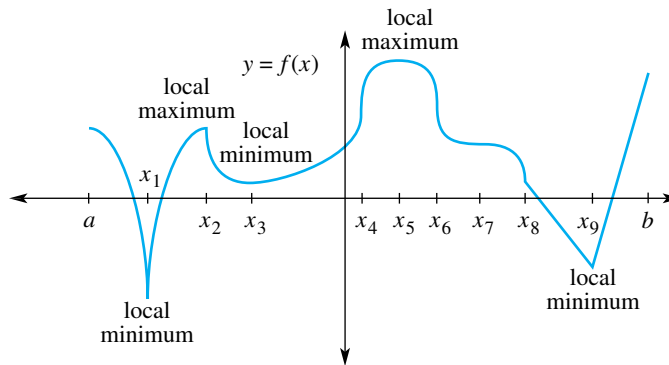


Figure 1. Short caption.

The following example shows a caption which includes an indexing command. Notice that there is a `\protect` command before the `\inx`. This keeps \LaTeX from expanding the `\inx` command at the wrong time.

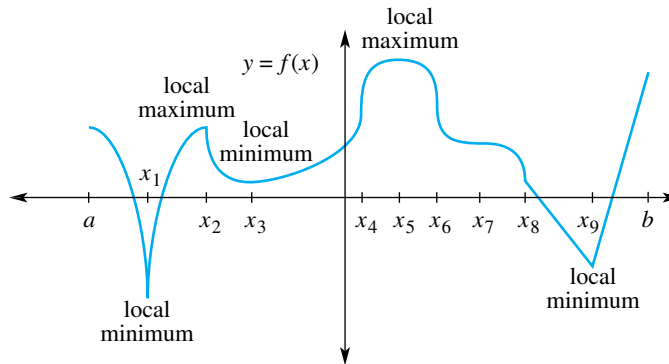


Figure 2. Oscillograph for memory address access operations, showing 500 ps address access time and $\alpha\beta\Gamma\Delta\sum_{123}^{345}$ superimposed signals of address access in 1 kbit memory plane.

Here is an example of a double caption; one figure with two¹ captions appearing side by side:

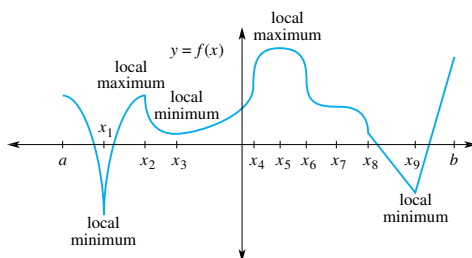


Figure 3. This caption will go on the left side of the page. It is the initial caption of two side-by-side captions.

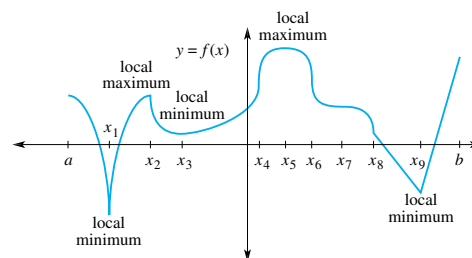


Figure 4. This caption will go on the right side of the page. It is the second of two side-by-side captions.

When you need a continued caption for a second figure that uses the same number as the preceding one as a continuation of the previous figure:

¹This is a sample footnote.

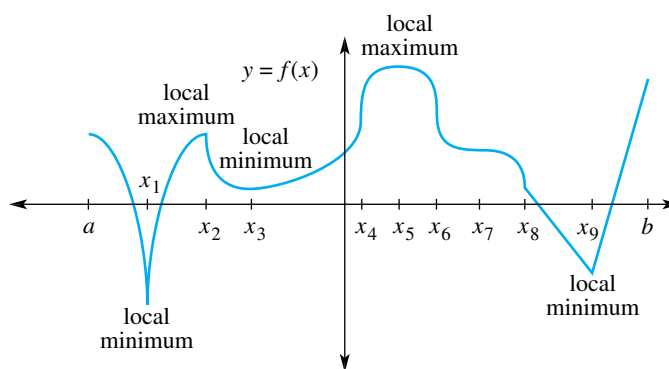


Figure 4 (continued). This is a continued caption.

When you need to make a lettered caption, you may use the command `\letteredcaption{ }{ }`. The first argument is for the letter.

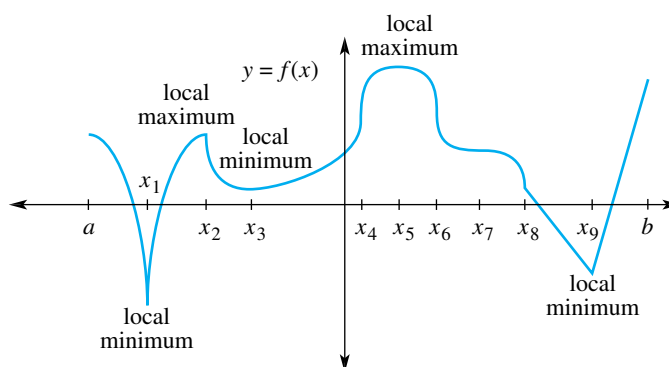


Figure 5a. Lettered caption.

Notice that you can have lettered captions in the side by side environment, which is one of the places that lettered captions may be most useful.

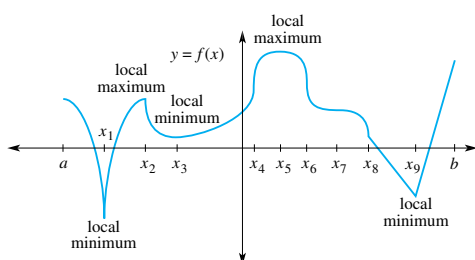


Figure 5b. One caption.

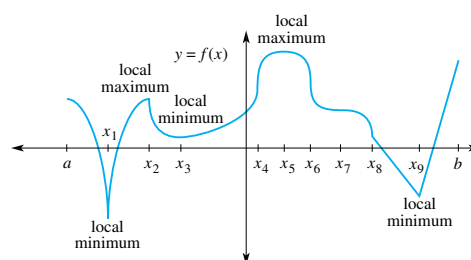


Figure 5c. Two captions.

3. Making Tables

Notice that the caption should be at the top of the table. Use a line above the table, under the column heads, and at the end of the table. If you use the Kluwer command, `\sphline` instead of the \LaTeX command `\hline`, you will get a little space added above and below the line, which will make your table look more elegant.

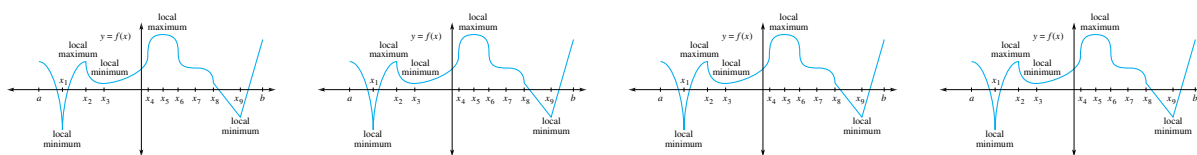


Figure 5d. First caption.

Figure 5e. Second caption.

Figure 5f. Third caption.

Figure 5g. Fourth caption.

This form of the tabular command makes the table spread out to the width of the page. This example also shows using `\caption[]{}{}` with the first argument, in square brackets, used to send information to the List of Tables.

Table 1. Effects of the Two Types of Scaling Proposed by Dennard and Co-Workers.^{a, b}

Parameter	κ Scaling	κ, λ Scaling
Dimension	κ^{-1}	λ^{-1}
Voltage	κ^{-1}	κ^{-1}
Currant	κ^{-1}	λ/κ^2
Dopant Concentration	κ	λ^2/κ

^aRefs. 19 and 20.

^b $\kappa, \lambda > 1$.

Tables may use both the `\sidebyside` and the `\letteredcaption` command to position the tables side by side and letter the captions.

Table 2a. A small table with a lettered table caption.

$\alpha\beta\Gamma\Delta$	One	Two	Three
one	two	three	

Table 2b. A small table with a second lettered table caption.

$\alpha\beta\Gamma\Delta$	One	Two	Three
one	two	three	
one	two	three	

The following table shows how you might increase vertical space between particular lines with the use of a ‘strut’, a vertical line with no width so that it doesn’t print, but which does have a height and/or depth.

Table 3. Here is a table caption.

Cell	Time (sec.)
1	432.22
2	32.32
3	2.32

The following table uses a continued caption, made with the command `\contcaption{}`.

3.1 Figure and Table in Landscape Mode

If you want to make landscape tables or figures, you should use `\usepackage[<your driver program>]{graphicx}`.

Table 3 (continued)

This is a continued caption.

<i>Cell</i>	<i>Time (sec.)</i>
4	532.22
5	12.02
6	4.44

In the square brackets you should type in the name of the driver program you are using, for instance, dvips, or dvipsone, or textures, etc. See the documentation for this package, edbkdocs.ps or .pdf, for information specifically about graphicx.sty, see grfguide.tex.[1]

This is how to make a figure and caption turn sideways on the page:

```
\begin{figure}[p]
\rotatebox{90}{\vbox to\textwidth{
\fill
\hsize=\textheight
\includegraphics{
\caption{
}}
\end{figure}
```

To make a table print sideways, you follow a similar same set of commands, except substitute

```
\begin{table}...\end{table} for \begin{figure}...\end{figure}
and skip the \vfill command:
```

```
\begin{table}[p]
\rotatebox{90}{\vbox to\textwidth{
%\vfill
\hsize=\textheight
\caption{
\begin{tabular}
....
\end{tabular}
}}
\end{table}
```

4. Other environments

This is a sample of extract or quotation. This is a sample of extract or quotation. This is a sample of extract or quotation.

1. This is the first item in the numbered list.
 2. This is the second item in the numbered list. This is the second item in the numbered list. This is the second item in the numbered list.
- This is the first item in the itemized list.
 - This is the first item in the itemized list. This is the first item in the itemized list. This is the first item in the itemized list.

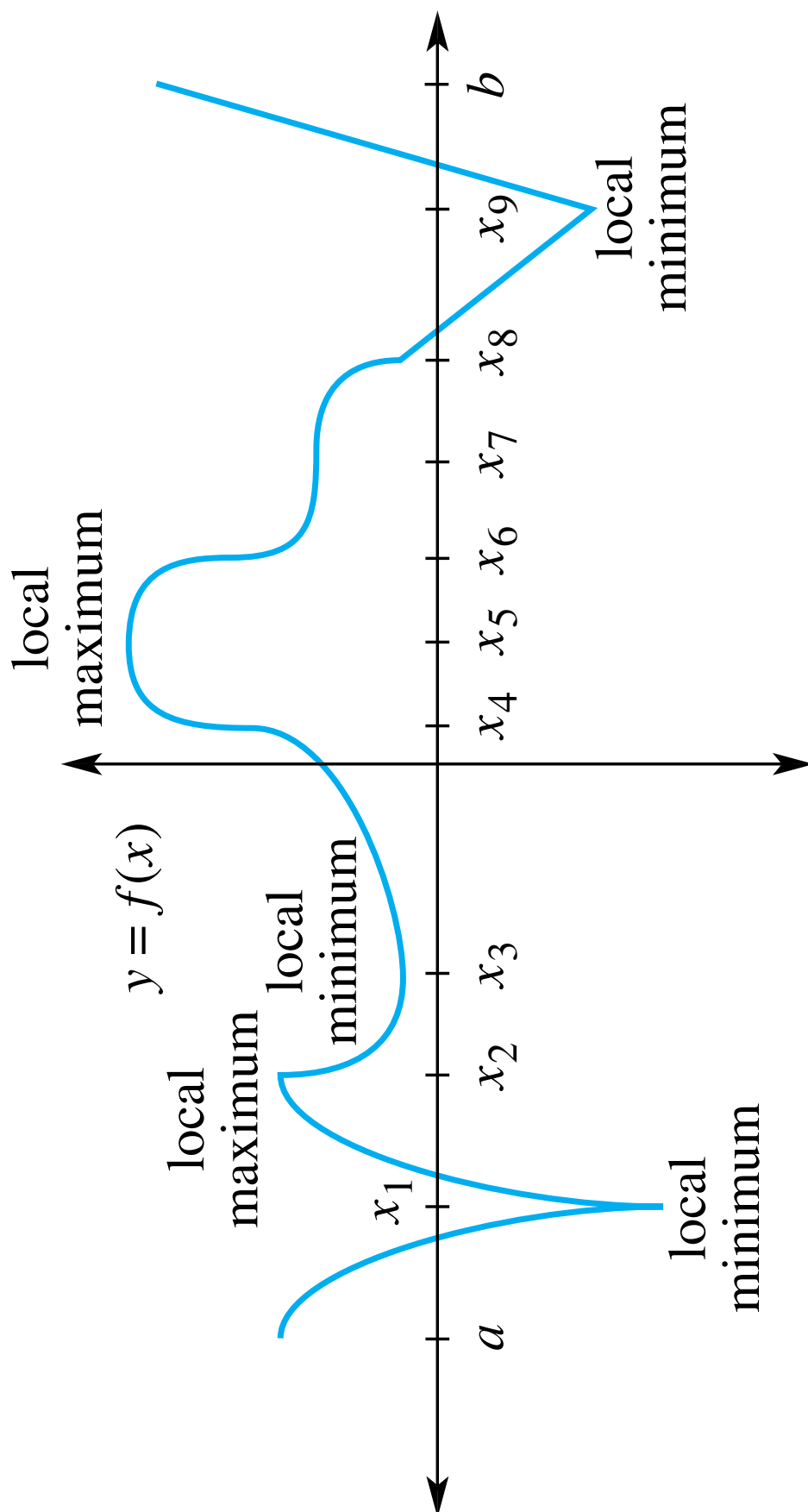


Figure 6.

This is how to get an indented paragraph without an item marker.

This is how to get an indented paragraph without an item marker.

Theorem 1. *Here is a theorem.*

Definition 2. *We define....*

5. Some Sample Algorithms

When you want to demonstrate some programming code, these are the commands to use. Lines will be preserved as you see them on the screen, as will spaces at the beginning of the line. A backslash followed with a space will indent the line. Blank lines will be preserved. Math and font changes may be used.

```
state_transition algorithm {
  for each neuron  $j \in \{0, 1, \dots, M - 1\}$ 
  {
    calculate the weighted sum  $S_j$  using Eq. (6);
    if ( $S_j > t_j$ )
      {turn ON neuron;  $Y_1 = +1$ }
    else if ( $S_j < t_j$ )
      {turn OFF neuron;  $Y_1 = -1$ }
    else
      {no change in neuron state;  $y_j$  remains unchanged;}.
  }
}
```

Here is another sample algorithm:

```
Evaluate-Single-FOE (  $\mathbf{x}_f, \mathbf{I}_0, \mathbf{I}_1$ ):
   $\mathbf{I}^+ := \mathbf{I}_1$ ;
   $(\phi, \theta) := (0, 0)$ ;
  repeat
     $(s_{opt}, \mathbf{E}_\eta) := \text{Optimal-Shift} ( \mathbf{I}_0, \mathbf{I}^+, \mathbf{I}_0, \mathbf{x}_f )$ ;
     $(\phi^+, \theta^+) := \text{Equivalent-Rotation} ( s_{opt} )$ ;
     $(\phi, \theta) := (\phi, \theta) + (\phi^+, \theta^+)$ ;
     $\mathbf{I}^+ := \text{Derotate-Image} ( \mathbf{I}_1, \phi, \theta )$ ;
    until ( $\|\phi^+\| \leq \phi_{max}$  &  $\|\theta^+\| \leq \theta_{max}$ );
  return (  $\mathbf{I}^+, \phi, \theta, \mathbf{E}_\eta$  ).
End pseudo-code.
```

6. Summary

This is a summary of this article.

Acknowledgments

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References

- [1] Anderson, Terry L., and Fred S. McChesney. (n.d.). "Raid or Trade? An Economic Model of Indian-White Relations," Political Economy Research Center Working Paper 93-1.
- [2] Lacey, W.K. (1968). *History of Socialism*. Ithaca, NY: Cornell University Press.
- [3] Oliva, Pavel. (1971). *Sparta and Her Social Problems*. Amsterdam: Adolf M. Hakkert.
- [4] Zimmern, Alfred. (1961). *The Greek Commonwealth: Politics and Economics in Fifth-Century Athens*, 5th ed. New York: Galaxy Book, Oxford University Press.

Using BibTeX for a bibliography

1. Sample Chapter Bibliography Using BibTeX

If you would rather make a bibliography using BibTeX write,

```
\bibliographystyle{plain}  
\chapbbblname{chapbib}  
\chapbibliography{logic}
```

and substitute the name of your .bib file for `logic` below. If you don't have `plain.bst` on your system, you can get it where you can find the book style files [?].

This will allow many BibTeX bibliographies in one book. This example shows the chapter bibliography using `\normallatexbib`. See the documentation, `KapProc.doc`, for more information.