

## An example SEG expanded nonostract

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### SUMMARY

This is an example of using the extended version of `segabs.cls` for writing SEG expanded abstracts. This example requires `extra` option, it has been enabled in default. Users could try to remove `wordlite` or `final`, or add `nohyref` to see what happens.

### INTRODUCTION

This is an introduction.  $\text{\LaTeX}$  is a powerful document typesetting system (Lamport, 1994). An excellent reference is (Kopka and Daly, 2004). The new `segabs.cls` class complies with the  $\text{\LaTeX}$ 2e standard.

### THEORY

This is another section.

### Equations

Section headings should be capitalized. Subsection headings should only have the first letter of the first word capitalized.

Here are examples of equations involving vectors and tensors:

$$\mathbf{R} = \begin{pmatrix} R_{XX} & R_{YX} \\ R_{XY} & R_{YY} \end{pmatrix} = \mathbf{P}_{M \rightarrow R} \mathbf{D} \mathbf{P}_{S \rightarrow M} \mathbf{S} \quad , \quad (1)$$

and

$$R_{j,m}(\omega) = \sum_{n=1}^N P_j^{(n)}(\mathbf{x}_R) D^{(n)}(\omega) P_m^{(n)}(\mathbf{x}_S) \quad . \quad (2)$$

Note that the macros for the `\tensor` command has been changed to force tensors to be bold uppercase, in compliance with current SEG submission standards. This is so that documents typeset to the old standards will print out according to the new ones: e.g., tensor  $\mathbf{T}$  (note converted to uppercase).

Let's check the `\mathcal` command:

$$\mathcal{L} = \mathcal{D}(\Theta) + \mathcal{E}(\sigma). \quad (3)$$

### Figures

Figure 1 shows what it is about.

*Multiplot*

Sometimes it is convenient to put two or more figures from different files in an array (see Figure 2). Individual plots are Figure 2a and Figure 2b.

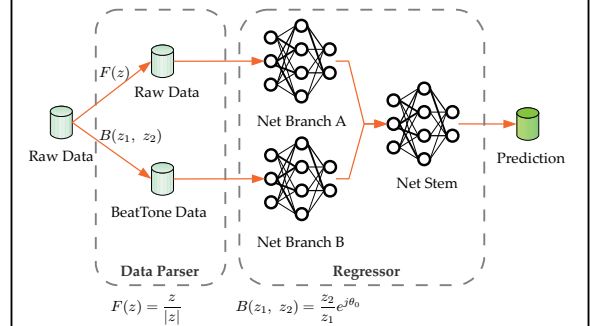


Figure 1: This figure is specified in the document by `\plot{net\_whole}\{width=\columnwidth\}\{This caption.\}`.

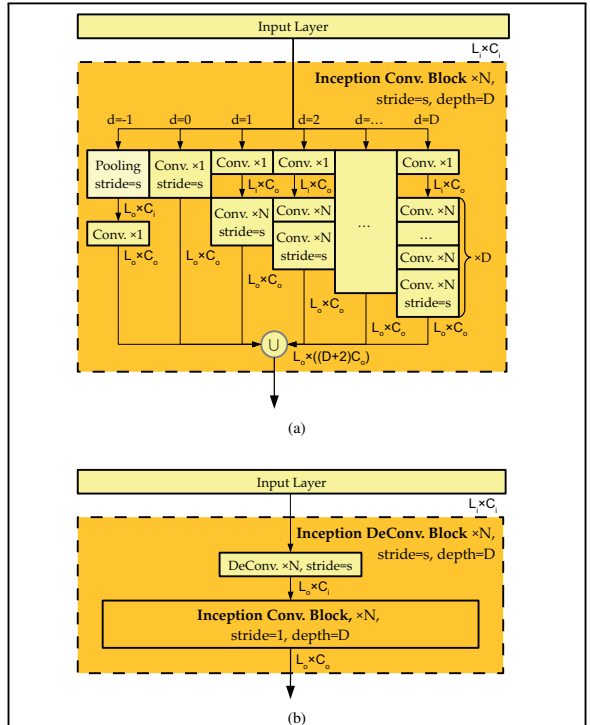


Figure 2: This figure is specified in the document by `\multiplot{2}\{block\_incep,block\_inceptdec\}\{width=0.8\columnwidth\}\{This caption.\}`.

The first argument of the `multiplot` command specifies the number of plots per row.

### Tables

The discussion is summarized in Table 1.

Table Example		
migration	$\omega \rightarrow k_z$	$k_y^2 + k - z^2 \cos^2 \psi = 4\omega^2/v^2$
zero-offset diffraction	$k_z \rightarrow \omega_0$	$k_y^2 + k_z^2 = 4\omega_0^2/v^2$
DMO+NMO	$\omega \rightarrow \omega_0$	$\frac{1}{4}v^2k_y^2 \sin^2 \psi + \omega_0^2 \cos^2 \psi = \omega^2$
radial DMO	$\omega \rightarrow \omega_s$	$\frac{1}{4}v^2k_y^2 \sin^2 \psi + \omega_s^2 = \omega^2$
radial NMO	$\omega_s \rightarrow \omega_0$	$\omega_0 \cos \psi = \omega_s$

Table 1: This table is specified in the document by `\tbl{example}{This caption.}{...}`.

### Algorithms

We show an example of algorithm in Algorithm 1. Users could use some commands like `\STATE`, `\FOR`, `\FORALL`, `\IF` and `\WHILE` to write algorithms.

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**Algorithm 1** ReLU function.

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**Input:** Input vector  $\mathbf{x}$

**Output:** Output vector  $\mathbf{y}$ .

1:  $\mathbf{y} = \max(\mathbf{x}, 0)$ ;

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### ACKNOWLEDGMENTS

I wish to thank Ivan Pšenčík and Frédéric Billette for having names with non-English letters in them. I wish to thank Červený (2000) for providing an example of how to make a bib file that includes an author whose name begins with a non-English character and Forgues (1996) for providing both an example of referencing a Ph.D. thesis and yet more non-English characters.

### APPENDIX A

#### APPENDIX EXAMPLE

According to the new SEG standard, appendices come before references.

$$\frac{\partial U}{\partial z} = \left\{ \sqrt{\frac{1}{v^2} - \left[ \frac{\partial t}{\partial g} \right]^2} + \sqrt{\frac{1}{v^2} - \left[ \frac{\partial t}{\partial s} \right]^2} \right\} \frac{\partial U}{\partial t} \quad (\text{A-1})$$

It is important to get equation A-1 right.

### APPENDIX B

#### ANOTHER APPENDIX

$$\frac{\partial U}{\partial z} = \left\{ \sqrt{\frac{1}{v^2} - \left[ \frac{\partial t}{\partial g} \right]^2} + \sqrt{\frac{1}{v^2} - \left[ \frac{\partial t}{\partial s} \right]^2} \right\} \frac{\partial U}{\partial t} \quad (\text{B-1})$$

Too lazy to type a different equation but note the numeration.

The error comparison is provided in Figure B-1.

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## SEG abstract example

