

**YOUR TITLE IN ENGLISH
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Thesis presented as partial requirement for
obtaining the degree of Ph. D. in Computer
Science at Pontifical Catholic University of
Rio Grande do Sul.

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Dedico este trabalho a meus pais.

"The art of simplicity is a puzzle of complexity."
(Douglas Horton)

ACKNOWLEDGMENTS

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RESUMO

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Palavras Chave: lorem, ipsum, dolor, sit, amet.

YOUR TITLE IN ENGLISH HERE

ABSTRACT

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Keywords: lorem, ipsum, dolor, sit, amet.

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LIST OF ACRONYMS

ABC – Associação Brasileira de Computadores

IJK – lorem ipsum dolor sit

XYZ – lorem ipsum dolor sit

LIST OF ABBREVIATIONS

Abrev. – Abreviatura

Inform. – Informática

LIST OF SYMBOLS

Hz – Hertz	29
π – Constante com valor aproximado de 3.1415926	29

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1. INTRODUÇÃO

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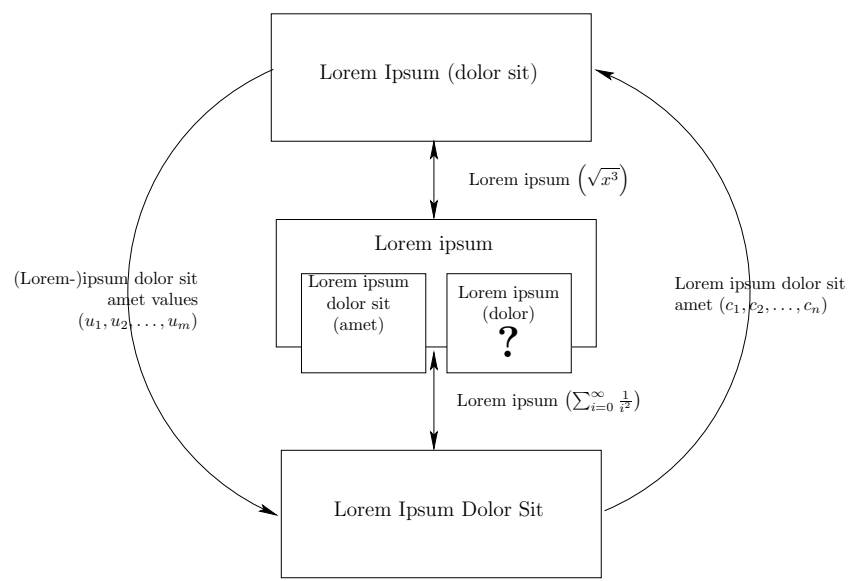


Figure 1.1 – This is a figure

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dolor sit amet consetetur sadipscing elitr sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat sed diam voluptua at vero [Atk04].

1. lorem
2. ipsum
3. dolor
4. sit
5. amet
6. consetetur

```

1. function  $\sigma(i, j)$ 
2. {table is a global object to contain the best matching templates for each pair  $(i, j)$ }
3. if  $table[i, j].memoized$  then
4.   return  $table[i, j].error$ 
5. end if
6.  $minerror \leftarrow \infty$ 
7.  $bestt \leftarrow nil$ 
8. for each template  $t$  in  $T$  do
9.    $error \leftarrow allocate(t, i, j)$ 
10.  if  $error < minerror$  then
11.     $minerror \leftarrow error$ 
12.     $bestt \leftarrow t$ 
13.  end if
14. end for
15.  $table[i, j].memoized \leftarrow true$ 
16.  $table[i, j].template \leftarrow bestt$ 
17.  $table[i, j].error \leftarrow minerror$ 
18. return  $minerror$ 

```

Figure 1.2 – Template scoring and selection function

1.1 Primeira seção

lorem ipsum dolor sit $x \leq 2$ amet consetetur sadipscing elitr sed diam nonumy eirmod
 Seção 1.1 tempor invidunt ut labore et dolore magna aliquyam erat sed diam voluptua at vero eos
 et accusam et justo duo dolores et ea rebum stet clita. [dO08]

$$\int_0^{\infty} x^2 + \frac{\pi}{\sum_{i=0}^n \frac{1}{i^2}} \quad (1.1)$$

kasd gubergren no sea Equação (1.1) takimata sanctus est lorem ipsum dolor sit amet
 lorem ipsum dolor sit amet consetetur sadipscing elitr sed diam nonumy eirmod. [PCC⁺11]

amet lorem ipsum dolor sit amet consetetur sadipscing elitr sed diam nonumy eirmod. [Pic08]

1.1.1 Subseção

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- lorem
- ipsum
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Subsubsub

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$$L(i, j, w, h) = \begin{cases} E(i, w, h) & i = j \\ \min \left(\min_{k=i}^{j-1} \{\heartsuit(i, k, j, w, h)\}, \min_{k=i}^{j-1} \{\spadesuit(i, k, j, w, h)\} \right) & i < j. \end{cases} \quad (1.2)$$

lorem ipsum dolor sit amet consetetur sadipscing elitr sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat sed diam voluptua at vero eos et accusam et justo duo dolores et ea rebum stet clita kasd gubergren no sea takimata sanctus est lorem ipsum dolor sit amet lorem ipsum dolor sit amet consetetur sadipscing elitr sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat sed diam voluptua at vero eos et accusam et justo duo dolores et ea rebum stet clita kasd gubergren no sea takimata sanctus est lorem ipsum dolor sit amet lorem ipsum dolor sit amet consetetur sadipscing elitr sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat sed diam voluptua at vero eos et accusam et justo duo dolores et ea rebum stet clita kasd gubergren no sea takimata sanctus est lorem ipsum dolor sit amet.

De acordo com Fulaninho (2011, p. 19):

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2. ANOTHER CHAPTER

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Table 2.1 – This is a table

Atividade	Ano/Semestre			
	2011/II	2012/I	2012/II	2013/I
1				
2	✓	✓	✓	
3	✓	✓	✓	
4	✓	✓	✓	×
5				
6				
7	×			
8		×		
9		×	×	
10	×	×	×	
11	×	×	×	×

2.1 Another section

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Lorem ipsum dolor sit amet consetetur sadipscing elitr sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat sed diam voluptua at vero eos et accusam et justo duo dolores et ea rebum stet clita kasd gubergren no sea takimata sanctus est lorem ipsum dolor sit amet lorem ipsum dolor sit amet consetetur sadipscing elitr sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat sed diam voluptua at vero eos et accusam et justo duo dolores et ea rebum stet clita kasd gubergren no sea takimata sanctus est lorem ipsum dolor sit amet lorem ipsum dolor sit amet consetetur sadipscing elitr sed diam nonumy eirmod tempor invidunt ut labore et dolore magna aliquyam erat sed diam voluptua at vero eos et accusam et justo

duo dolores et ea rebum stet clita kasd gubergren no sea takimata sanctus est lorem ipsum dolor sit amet. Figura 2.1.

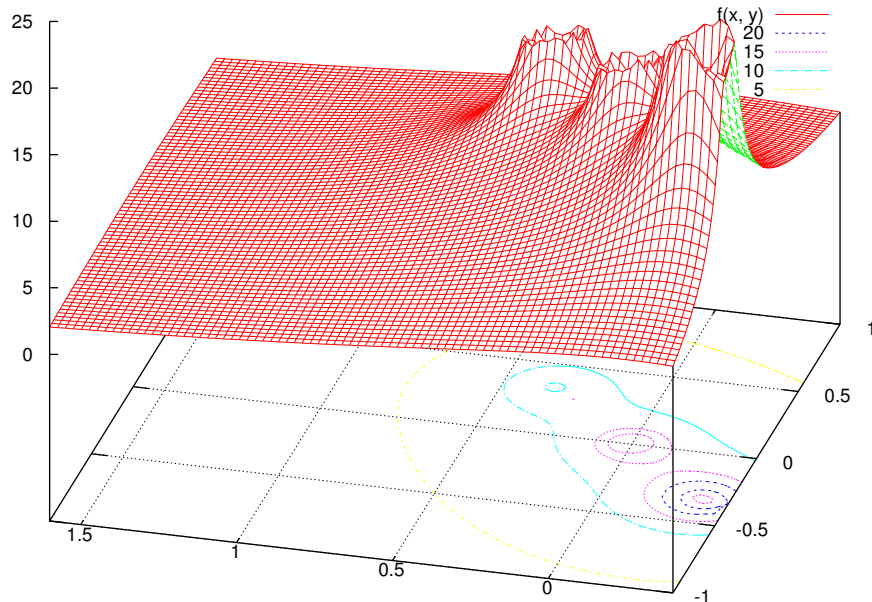


Figure 2.1 – This is another figure

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2.1.1 Another subsection

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Another subsection

lorem ipsum dolor sit amet consetetur sadipscing elitr sed diam nonumy. A seguir, a Tabela 2.2 mostra algo mais simples.

Table 2.2 – Note que a legenda da tabela fica na parte de cima

1	2	3
4	5	6
7	8	9
1	2	3
4	5	6
7	8	9
1	2	3
4	5	6
7	8	9

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BIBLIOGRAPHY

- [Atk04] Atkins, B. C. “Adaptive photo collection page layout”. In: International Conference on Image Processing, 2004, pp. 2897–2900.
- [CGMV] Coffman, E.; Galambos, J.; Martello, S.; Vigo, D. “Bin packing approximation algorithms: Combinatorial analysis”. Capturado em: <http://citeseer.ist.psu.edu/coffman98bin.html>, Dez 2007.
- [CLRS01] Cormen, T. H.; Leiserson, C. E.; Rivest, R. L.; Stein, C. “Introduction to Algorithms, Second Edition”. Cambridge, MA: The MIT Press, 2001, 1184p.
- [dO08] de Oliveira, J. B. S. “Two algorithms for automatic document page layout”. In: Proceedings of the eighth ACM symposium on Document engineering, 2008, pp. 141–149.
- [Gol09] Goldenberg, E. “Automatic layout of variable-content print data”, Master’s Thesis, School of Cognitive & Computing Sciences, University of Sussex, Brighton, UK, 2009, 41p.
- [Lin05] Lin, X. “Active layout engine: Algorithms and applications in variable data printing”, Technical Report, Hewlett & Packard Laboratories, Palo Alto, CA, USA, 2005, 33p.
- [NA07] Nagamochi, H.; Abe, Y. “An approximation algorithm for dissecting a rectangle into rectangles with specified areas”, *Discrete Appl. Math.*, vol. 155–4, 2007, pp. 523–537.
- [PCC⁺11] Piccoli, R. F. B.; Chamun, R.; Cogo, N. C.; de Oliveira, J. B. S.; Manssour, I. H. “A novel physics-based interaction model for free document layout”. In: Proceedings of the 11th ACM symposium on Document engineering, 2011, pp. 153–162.
- [Pic08] Piccoli, R. F. B. “Um algoritmo determinístico para adaptação automática de documentos de conteúdo variável”, Master’s Thesis, Faculdade de Informática – PUCRS, Porto Alegre, RS, Brasil, 2008, 104p.
- [Pla81] Plass, M. F. “Optimal pagination techniques for automatic typesetting systems”, Ph.D. Thesis, Stanford University, Stanford, CA, USA, 1981, 80p.
- [Wik09] Wikipedia. “Wikipedia:featured pictures — Wikipedia, the free encyclopedia”. Capturado em: http://en.wikipedia.org/wiki/Featured_pictures, Nov 2009.

APPENDIX A – MEU PRIMEIRO APÊNDICE

APPENDIX B – MY SECOND APPENDIX

ATTACHMENT A – Meu primeiro anexo

ATTACHMENT B – My second attachment