

UNIVERZA NA PRIMORSKEM
FAKULTETA ZA MATEMATIKO, NARAVOSLOVJE IN
INFORMACIJSKE TEHNOLOGIJE

Zaključna naloga

(Final project paper)

Naslov zaključne naloge

(Title of final project paper in English)

Ime in priimek:

Študijski program: (name of the study program, in Slovene)

Mentor: (with all titles, in Slovene)

Somentor: (with all titles, in Slovene)

Koper, mesec leto

Ključna dokumentacijska informacija

Ime in PRIIMEK:

Naslov zaključne naloge:

Kraj:

Leto:

Število listov:

Število slik:

Število tabel:

Število prilog:

Število strani prilog:

Število referenc:

Mentor:

Somentor:

Ključne besede:

Math. Subj. Class. (2010):

Izvleček:

Izvleček predstavlja kratek, a jedrnat prikaz vsebine naloge. V največ 250 besedah nakaemo problem, metode, rezultate, ključne ugotovitve in njihov pomen.

Key words documentation

Name and SURNAME:

Title of final project paper:

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Abstract:

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List of Abbreviations

i.e. that is

e.g. for example

1 Introduction

Here we describe the problem studied in the final project paper. We present the basic ideas and introduce the basic definitions and notation. We can also summarize the mathematical facts that will be used later. We cite the literature relevant for the notions considered, possibly including additional references.

- Example of citing:

Minimizing the bandwidth of matrices is helpful for efficient storage and computation, for example for Gaussian elimination. More details can be found in [3, 7, 22].

2 Embeddings

We add some connecting text.

2.1 Volume respecting embeddings

We add some connecting text.

2.1.1 Preliminary results

We add some connecting text.

Definition 2.1. A graph G is *connected* if for every two vertices $u, v \in V(G)$ there exists a u, v -path in G .

Lemma 2.2. *A lemma is an auxiliary statement used for proving the main result.*

Proof. Here we write the proof of the lemma. The proof should be short, but accessible to all students. Be careful about the logical structures of proofs: all steps should be justified. □

Theorem 2.3. *A theorem is the most important statement in a chapter. There should be only few theorems, the remaining statements should be formulated as “lemmas” or as “propositions”.*

Proof. Here comes the proof of the theorem. □

This is how we can use the label/ref command to refer in text to Theorem 2.3.

Corollary 2.4. *A corollary is a statement that follows immediately from the main theorem. It only needs a short proof (a couple of lines). If the statement cannot be proved in just a couple of lines, then it shouldn't be called corollary, but rather a lemma or a proposition.*

Remark 2.5. With a remark, we can provide more insight to a lemma or the main theorem. For instance, we could give counterexamples to the theorem if we omit some of the hypotheses.

This is how a picture is inserted:

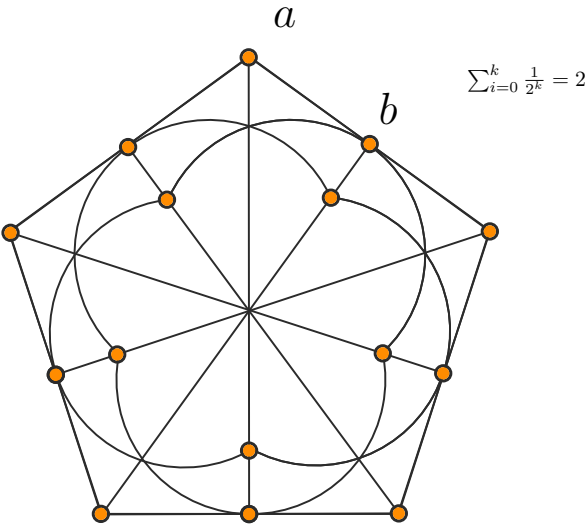


Figure 1: Input data.

This is how a table is inserted:

Table 1: Algorithm PLOGBAND

Algorithm PLOGBAND:

Input: a graph $G = G(V, E)$ with n vertices and m edges, $L \in \mathbb{N}$.

1. For $1 \leq j \leq L$ let p_j be approximately uniformly (geometrically) spaced numbers between $1 - 1/\log \log n$ and $1/\log n$. That is, all ratios p_j/p_{j+1} are about the same.
2. Sort the vertices according to non-decreasing values of $h(v)$.
3. Return the obtained linear order.

This is how we cite a figure or table:

All that we need to complete the proof is summarized in Table 1.

An example of input data is given in Figure 1.

We can similarly label and cite chapters, sections, subsections, theorems etc.

This is an example of how we can write a pseudocode of an algorithm:

Algorithm 1: Matrix multiplication

Input: Real $n \times n$ matrices A and B .

Output: Matrix $C = A \cdot B$.

```
1 for  $i = 1, \dots, n$  do
2   for  $j = 1, \dots, n$  do
3      $C[i, j] := A[i, 1] \cdot B[1, j];$ 
4     for  $k = 2, \dots, n$  do
5        $C[i, j] := C[i, j] + A[i, k] \cdot B[k, j];$ 
6 if  $n = 2$  then
7   do nothing
8 return  $C;$ 
```

3 Title of Chapter

This is how we cite web sources: [24–26].

This is how we cite accepted papers and papers in print: [13–16].

This is how we cite submitted papers: [17, 18].

4 Conclusion

In few sentences we briefly summarize the content of the project paper. This is also the place where we can add some further references for the interested reader.

5 Povzetek naloge v slovenskem jeziku

This chapter contains a longer summary of the final project paper in Slovene, in total length between 4.000 and 10.000 characters (spaces included).

6 Bibliography

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Appendices

A Title of First Appendix

Here we add the first appendix.

B Title of Second Appendix

Here we add the second appendix.